

MAGAZINE OF THE SOUTHWEST

Desert

AUGUST, 1975

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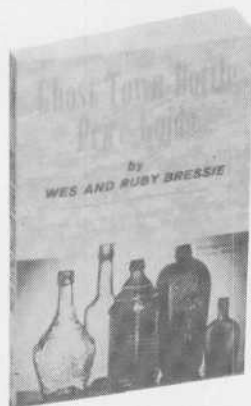
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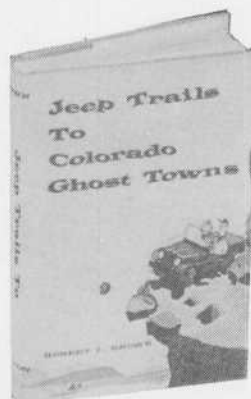
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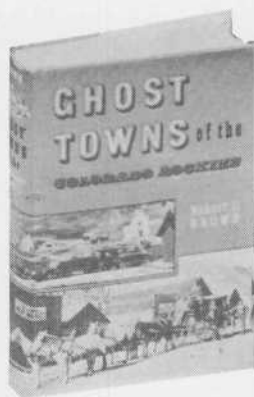
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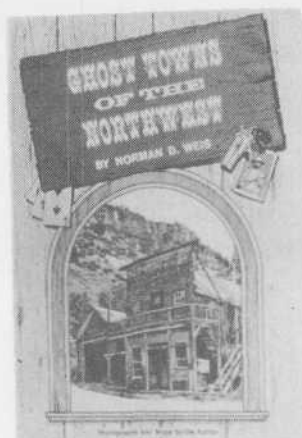
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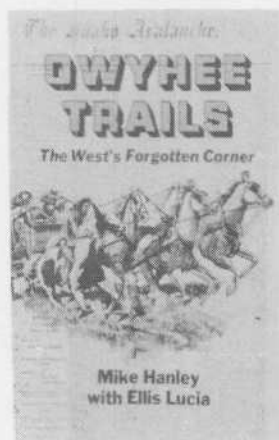
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GHOST TOWNS OF THE COLORADO ROCKIES by Robert L. Brown. Written by the author of Jeep Trails to Colorado Ghost Towns, this book deals with ghost towns accessible by passenger car. Gives directions and maps for finding towns along with historical backgrounds. Hardcover, 401 pages, \$7.95.



GHOST TOWNS OF THE NORTHWEST by Norman Weis. The ghost-town country of the Pacific Northwest, including trips to many little-known areas, is explored in this first-hand factual and interesting book. Excellent photography, maps. Hardcover, 319 pages, \$7.95.



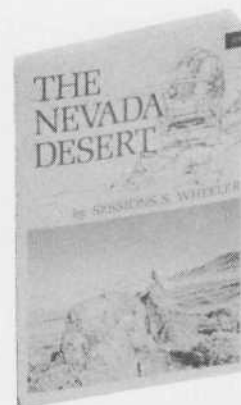
OWYHEE TRAILS by Mike Hanley and Ellis Lucia. The authors have teamed to present the boisterous past and intriguing present of this still wild corner of the West sometimes called the I-O-N, where Idaho, Oregon and Nevada come together. Contains interesting reading of the mining booms, Indian battles, holdups and range wars of this little known area called The Owyhees. Hardcover, 225 pages, \$7.95.

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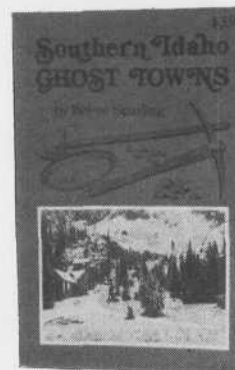
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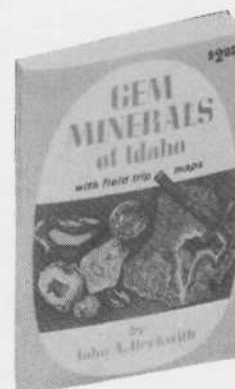
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THE NEVADA DESERT by Sessions S. Wheeler. Provides information on Nevada's state parks, historical monuments, recreational area, and suggestions for safe, comfortable travel in the remote sections of western America. Paperback, illustrated, 168 pages, \$2.95.



SOUTHERN IDAHO GHOST TOWNS by Wayne Sparling. An excellent reference describing 84 ghost towns and the history and highlights of each. Excellent maps detail the location of the camps, and 95 photographs accompany the text. Paperback, 135 pages, \$3.95.



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Desert

MAGAZINE

Volume 38, Number 8

AUGUST 1975

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THE COVER:
Quanah Parker, a Kwa-hadi Comanche chief, by Elbert Cheyno. See article on Page 24.

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A Peek in the Publisher's Poke

DESERT MAGAZINE takes pleasure in introducing a group of talented craftsmen who call themselves The American Indian and Cowboy Artists Society. Included among the members who will be appearing in *Desert* are: Y. Elbert Cheyno, Charles L. Cochrane, Andrew Dagosta, David Halbach, Wayne Justus, Charles S. LaMonk, Kenneth Mansker, Lloyd Mitchell, Jimmi Reyes, Norberto Reyes, Joseph C. Schumacher and David V. Villaseñor.

This month we feature the work of Y. Elbert Cheyno who recently showed in the First Annual George Phippen Memorial Invitational Western Art Show at Prescott, Arizona, which was a tremendous success. His cover painting of Quanah Parker, a Kwahadi Comanche chief, and other selected works are on display in our book shop. Quanah's life is a story of courage and pride, being the last of the fierce Comanches to surrender to the military in 1875.

Plan now to attend the First Annual Palm Springs Gold Mining and Treasure Hunting Show to be held Friday and Saturday, August 1 & 2. This will be a great opportunity to see the latest in metal detectors on the market. Guest lecturers, mining, rockhound and lapidary equipment and a book fair—all in the new Palm Springs City Pavilion—will make for an enjoyable visit for the entire family. And be sure to stop by our booth and say hello.

Mary Frances Strong, husband Jerry, and the *Desert* Staff really appreciated the warm and wonderful response to "Owls on My Hat" (June, '75). Next month, M.F. takes wings once more with a feature on "Hawking."

William Krupnik

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Some say we're becoming a nation of mannequins. Nothing but heartless, mindless clothes racks, no longer caring about, or for, each others' needs.

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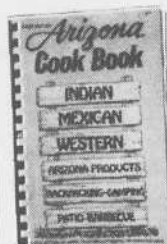


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Books for Desert Readers



TURQUOISE

The Gem of the Centuries

By Oscar T. Branson

With every page in four color, this is one of the most complete and lavishly illustrated books available on turquoise. Both the amateur and professional will find this publication a must as it describes and depicts this beautiful gem from 43 localities in the United States and around the world.

The Introduction gives a brief history, going back 7000 years to the Egyptians, and following through to the present day crafts of the Indians of the Southwest. Detailing the individual techniques of the tribes, the beautiful photographs by the Ray Manley Studios illustrate the Zunis, Navajos, Santo Domingo and other artistic creations. Readers will also find the map of turquoise mines in the Southwest of interest as it is designed to give an idea of the kind and color of the turquoise and approximate location of the mines where it occurs.

Descriptions of treated or stabilized material are given, as well as instructions for identifying high quality turquoise. Illustrations of imitation stones are also included.

To quote from the author's introduction:

"In our own Southwest, turquoise mines were worked by Indians before the time of Christ. In fact many of the mines that are producing today were worked in prehistoric times. Here in America today thousands of people are becoming aware of it and the old fascination is taking hold. Down through the ages and especially now, fine gems and jewelry have been a commodity more stable than money. In other words it is and always has been a good investment. Turquoise and silver jewelry is a pleasure to wear and enjoy. While one is enjoying it, they are aware that it is something of value both intrinsic and esthetic.

"Some people think turquoise is a fad. If this is so, it has been a fad for over 7,000 years."

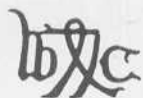
Large format, 68 pages, heavy paper-back, \$6.95.

THE COMPLETE BOOK OF TRICK AND FANCY RIDING

Frank Dean

The author has had well over thirty years of trick and fancy riding experience and is still performing with his ropes, whips, knives, guns and horses 49 years after entering his first rodeo in 1926! This book covers every phase of "how to do it," from the beginner learning the first simple stunts to the finished professional performer and his repertoire. A complete set of stick figure drawings show just how to go into each trick and how to get out of it. Lavishly illustrated with action photographs.

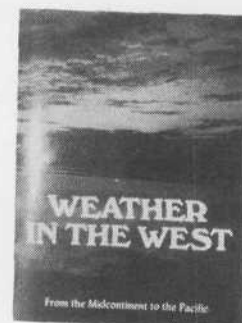
8½ x 11, 259 pages, cloth, boxed \$14.95



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WEATHER IN THE WEST

By Bette Roda Anderson

Weather is something everyone talks about but nobody seems to really know much about, until they read *Weather In*

The West, latest in the Great West Series from the American West Publishing Company in Palo Alto. The author, acknowledging the immensity and complexity of her subject, wisely confines her discussion to the western half of the United States and documents her data every step of the way with a battery of consultants.

Incomparable color and black and white photographs do not merely grace the pages of this book; they are an integral part of Ms. Anderson's lucid explanation of climatic elements and the myriad components of weather.

The book is divided into easily definable sections — any one providing a logical place to start your reading — that fit together into a layman's primer of meteorology. You will learn the role of the never-faltering sun, "the power plant of the weather machine," as well as the unique wind of Southern California, the notorious Santa Ana.

Weather In The West is a layman's book and covers the fundamentals of weather, but not in a textbook fashion that leaves the beginner bewildered and desparate for an unabridged dictionary. There are some technical terms, all alphabetized along with other useful appendix data at the back of the book. There are charts, tables and diagrams, too, but all accompanied by brief, understandable text written with good humor and clarity.

The potential disaster confronting the industrializing West as we tinker with the weather as much as the ground's surface is discussed factually, without a lot of death and disaster pontificating. In short, *Weather In The West* is a usable blend of the past — Indian legends and our own weather superstitions — with the present-day state of the weather forecasting art and the future portent of weather control and the implications of our continued pollution efforts.

For those who want to know more about weather, the author offers a handy "suggested reading" appendix including available government publications right down to the weather tables and data for your own home town.

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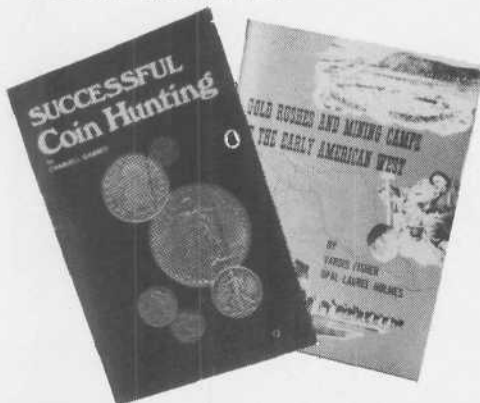
THE CAHUILLA INDIANS by Harry James. A comparatively small and little known tribe, the Cahuilla Indians played an important part in the early settlement of Southern California. Today, the Cahuilla Indians are active in social and civic affairs in Riverside County and own valuable property in and around Palm Springs. This revised edition is an authentic and complete history of these native Americans. Hardcover, illustrated, 185 pages, \$7.50.

GUIDEBOOK TO THE COLORADO DESERT OF CALIFORNIA by Choral Pepper. Editor of Desert Magazine for six years, the author has used her research knowledge and first-hand experience to compile this detailed and informative guide to the Colorado Desert. Trips also include historical background. Slick paperback, illustrated, 128 pages, \$2.95.

THE GUNFIGHTERS, paintings and text by Lea F. McCarty. Contains 20 four-color reproductions of some of the most famous gunfighters of the West, together with a brief history of each. Large format, beautifully illustrated, \$3.00.

SUCCESSFUL COIN HUNTING by Charles L. Garrett. An informative study of coin hunting, this is a complete guide on where to search, metal detector selection and use, digging tools and accessories, how to dig and the care and handling of coins. A classic book in the field. 181 pages, paperback, \$5.00.

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GOLD RUSHES AND MINING CAMPS OF THE EARLY AMERICAN WEST by Vardis Fisher and Opal Laurel Holmes. Few are better prepared than Vardis Fisher to write of the gold rushes and mining camps of the West. He brings together all the men and women, all the fascinating ingredients, all the violent contrasts which go to make up one of the most enthralling chapters in American history. 300 illustrations from photographs. Large format, hardcover, boxed, 466 pages, highly recommended. \$17.95.

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BALLARAT, Compiled by Paul Hubbard, Doris Bray and George Pipkin. Ballarat, now a ghost town in the Panamint Valley, was once a flourishing headquarters during the late 1880s and 1900s for the prospectors who searched for silver and gold in that desolate area of California. The authors tell of the lives and relate anecdotes of the famous old-timers. First published in 1965, this reprinted edition is an asset to any library. Paperback, illustrated, 98 pages, \$3.00.



THE LIFE OF THE DESERT by Ann and Myron Sutton. This fascinating volume explains all the vital inter-relationships that exist between the living things and the physical environment of our vast desert regions. More than 100 illustrations in full color. Helpful appendices contain comprehensive index and glossary. Special features on endangered species, lizards and poisonous animals. Hardcover, 232 pages, profusely illustrated, \$5.50.

OUR HISTORIC DESERT, The Story of the Anza-Borrego State Park. Text by Diana Lindsay, Edited by Richard Pourade. The largest state park in the United States, this book presents a concise and cogent history of the things which have made this desert unique. The author details the geologic beginning and traces the history from Juan Bautista de Anza and early-day settlers, through to the existence today of the huge park. Hardcover, 144 pages, beautifully illustrated, \$9.50.

THE KING'S HIGHWAY IN BAJA CALIFORNIA by Harry Crosby. A fascinating recounting of a trip by muleback over the rugged spine of the Baja California peninsula, along an historic path created by the first Spanish padres. It tells of the life and death of the old Jesuit missions. It describes how the first European settlers were lured into the mountains along the same road. Magnificent photographs, many in color, highlight the book. Hard cover, 182 pages, large format, \$14.50.

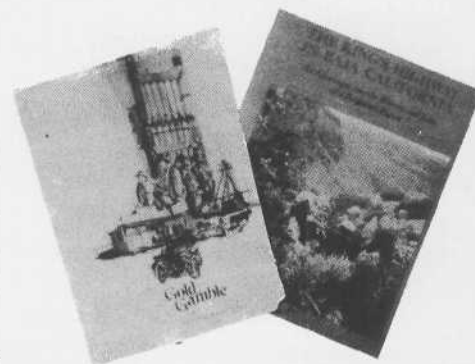
BAHAMAS, A STEER TO REMEMBER by Harriett E. Weaver. A dramatic and tender story of a boy, his pet, and the devotion they had for each other, deftly weaving reality with fiction. Fifteen-year-old Brad is given Bahamas as a weak calf not expected to survive. The story encompasses hard times in the giant redwood forest and a flood that ravaged the country. The author of **FROSTY, A Raccoon to Remember** brings you another fascinating story in Bahamas—a book to be remembered. Hardcover, 181 pages, \$5.95.

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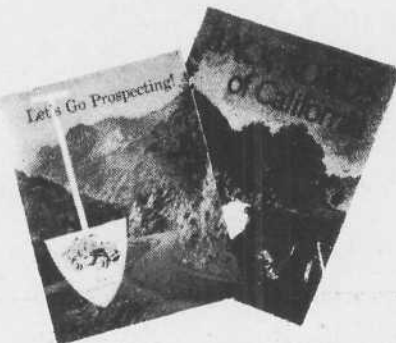
LOST MINES OF THE GREAT SOUTHWEST by John D. Mitchell. The first of Mitchell's lost mine books is now available after having been out of print for years. Reproduced from the original copy and containing 54 articles based on accounts from people Mitchell interviewed. He spent his entire adult life investigating reports and legends of lost mines and treasures of the Southwest. Hardcover, illustrated, 175 pages, \$7.50.

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BACK ROADS OF CALIFORNIA by Earl Tholander and the Editors of Sunset Books. Early stagecoach routes, missions, remote canyons, old prospector cabins, mines, cemeteries, etc., are visited as the author travels and sketches the California Backroads. Through maps and notes, the traveler is invited to get off the freeways and see the rural and country lanes throughout the state. Hardcover, large format, unusually beautiful illustrations, 207 pages, \$10.95.

BIG RED: A WILD STALLION by Rutherford Montgomery. There was a time when there were many wild horse herds on our western ranges. These herds, jealously guarded by the stallion that had won them, met with real trouble when the hunters found they could get good prices for them from meat processors. *Big Red* tells how one stallion successfully defends his herd from both animal and human enemies. Illustrated, hardcover, 163 pages, \$4.95.

UTAH by David Muench, text by Hartt Wixom. The impressions captured here by David Muench's camera and Hartt Wixom's pen bring to life a most beautiful under-one-cover profile of the fascinating state of Utah. Large 11x14 format, hardcover, 188 pages, \$25.00.

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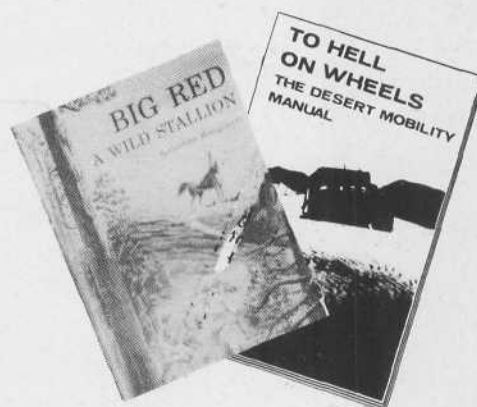
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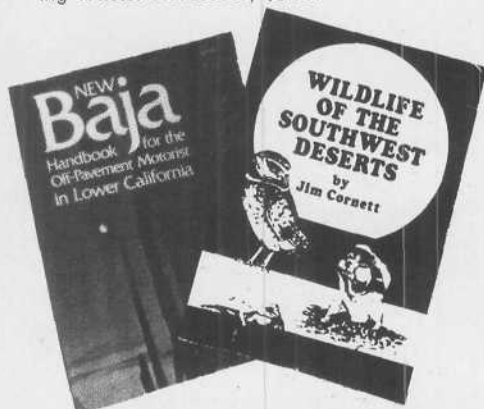


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by **STANLEY MEDDERS**

THE GRISLY VAMPIRE hovered over the neck of his sleeping victim, his gently flapping wings creating the merest suggestion of a breeze. Thus administering his chilling anesthetic, he painlessly slit the skin with incisors as sharp as a surgeon's knife. His tube-like tongue shot out and silently began its gruesome "lapping" from the sudden spurt of blood.

Something from an old horror movie? No indeed. The vampire is real. So is his victim. And the scene is repeated nightly all over neotropical America as the vampire bat takes his evening meal.

Spreading terror and death from Mexico to Brazil — the only area in the world where this small mammal lives — the vampire deserves his name. For he's a frightful looking creature with his broad skull and reduced "beak," his face so grotesque it would bring panic to the staunchest heart. And he robs us of our life-giving tissue — blood.

No other bat — indeed, no other mammal — is as well equipped for his trade as is the vampire. From his odd-shaped mouth to his seeming lack of stomach, his tools are admirably adapted to an ex-

Vampire Bat

clusive diet of blood. His greatly enlarged incisor and canine teeth, sharp as a scalpel, are used for one purpose only — to slit the skin. He has a mouth and tongue unique among other mammals: with his cleft lower lip and concave tongue, he forms a tubular mechanism, much like a soda straw, through which he silently draws blood to his mouth by a piston-like action intermediate between lapping and sucking. If the flow lessens, he agitates his tongue to stimulate a renewed source. And being a greedy creature, he'll often drink so much blood that, unable to fly, he must crawl to a high point for a gliding take off.

Of equal importance to his trade is his ability to alight on his unwakening victim with no more than a velvet touch from his elongated wing thumbs and petal-soft foot pads. Even his digestive system is specialized for his diet: the lumen of the alimentary canal, and especially of the esophagus, is extremely narrow; the stomach, when empty, singularly tube-like.

Reputedly named by the Spanish *conquistadores*, the true vampires belong to the family *Desmodontidae*, genus *Desmodus*. Though only about three inches in length, they have a wing spread of up to 20 inches. The male bats, weighing, on an average, 26 grams are smaller than the females, which weigh 34 grams. Ranging in color from reddish-

brown to a dull grey-brown, they inhabit caves, abandoned mine shafts and hollow trees, often in colonies of thousands. Unlike most other bats, which lie almost flat and crawl along a surface, vampires stand on their hind legs, propping themselves with their folded wings, and jump or scuttle much more rapidly than any other bat.

Naturalists believe they breed all year. The gestation period is five months and a new-born bat is equivalent to a 50-pound human baby. The baby bat is always born by breech birth, feet first with the wings folded against the body. Although, like most bats, vampires have only one young at birth, they abound in the American tropics. They are irregularly distributed, however, some districts being nearly free of them while in others the raising of horses and cattle is made difficult because of their attacks.

Desmodus is not particular about where he takes his supper. He'll attack any warm-blooded animal. Although cattle seem to be his favorite victims, he will attack other bats, horses, pigs, game animals, dogs, poultry, birds — and man.

Animals are usually bitten on exposed or thinly-covered areas — neck, horn bases, nose, ears, teats and anal regions; man on the lips, ears, forehead, fingers or toes. In true chilling fashion, vampires often creep under the bedclothes when attacking humans.

The amount of blood drawn is approximately an ounce. Therefore, a bird can be completely drained by one vampire bite. A single bat, in fact, consumes about five and three-quarters gallons of blood a year. Thus, in an area such as Mexico's Sierra Madre Occidental honeycombed with abandoned mines, a hypothetical 5,000 bats would consume 28,750 gallons of blood, or more than 75 gallons a night! In other words, it would take 500 head of cattle to support this bat colony of 5,000.

Although the loss of blood actually lapped up by the vampire when he ruptures the skin is of little consequence, the after-effects can be much more serious because *Desmodus'* saliva contains anti-coagulating enzymes which prevent the blood from clotting while he's feeding. So the victim may lose large amounts of blood long after the bat has flown away.

There are even more dire consequences, however. One is the spread of rabies. In the 1950s, vampires attacked Mexican cattle in such numbers that the U.S. considered closing its borders to beef imports. In the Brazilian state of Rio do Sul alone, they killed 50,000 cattle in 1956. Attacks on humans reached unprecedented heights in 1965, and again in 1970, when rabid bats were responsible for more than 30 deaths in Mexico's remote Batopilas region. Eighty-nine persons died of bat rabies between



*Rabid cow
near Vincente,
Oaxaca, Mexico.
This animal
is still being
bitten nightly by
vampires [blood
flowing from
wounds on
withers and neck].*

1935 and 1958 in Trinidad. The problem is compounded because of an interesting and little-understood oddity: rabies isn't necessarily fatal to the rabid vampire.

"Many bats survive exposure to the

rabies virus," observes Dr. Denny Constantine, one of our foremost epidemiologists. "They may incubate the disease for prolonged periods of time, recover entirely from the infection or have latent

infections. Thus, the animal may develop clinical rabies only when subjected to stress, as in migration."

The migratory habits of bats that live part of the year in caves from Texas to California have recently been subjected to probing studies by health officials. These officials express increasing alarm because hundreds of thousands of Mexican free-tailed bats that roost in Carlsbad Caverns and other caves in our Southwest have been observed cohabiting Mexican caves with fully active vampires. Several thousand free-tailed bats, some of which were rabid, died at Carlsbad in 1955. What really causes concern, however, is not only that bats exposed to rabies return to the U.S. to live alongside our native species but that they are preyed upon by many kinds of mammals.

"Foxes, raccoons, coyotes and skunks are abundant in the Carlsbad and other cave areas," says Dr. Constantine. "Not only do carnivora capture bats at cave entrances, they eat fallen bats or remove them from accessible ceiling areas. It's only natural to assume that fallen rabies-infected bats would be attacked by hungry or curious animals and that the bat would bite in retaliation."

"Rabies in wildlife is increasing," warns Dr. H. Spangler, former president of the American Veterinary Medical Association. "The number of animal cases occurring is too high for comfort."

Other officials concur with Dr. Spangler. They have observed that moribund, rabies-infected bats which have fallen to the ground will bite inquisitive persons and animals. So there exists a very real danger that both wildlife and man are subject to infection.

But an even more chilling discovery has recently been made by researchers: it is not necessary for a mammal to be bitten to get hydrophobia. At least two persons have died from laboratory-confirmed rabies after entering Frio Cave in Texas where rabid bats were known to exist. Neither had been bitten by a bat or any other animal. Therefore, their deaths suggested the possibility that the feared virus could be transmitted in the air, perhaps liberated in bat urine or feces. To test this hypothesis, scientists exposed several foxes, raccoons, opossums, coyotes and skunks to the air of caves where rabid bats lived. The experimental animals

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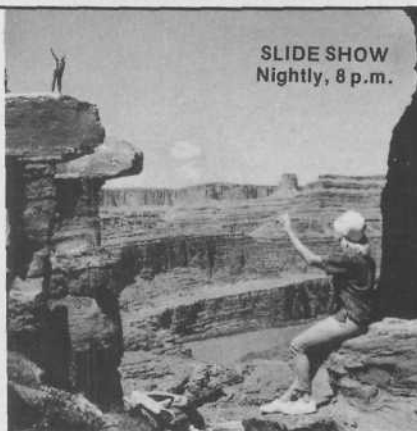
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contracted the disease. Since that time, scientists have recovered samples of rabies virus from cave air.

Since it's the vampire that initiated this menace to man, livestock and our own native wildlife, attempts have been made to exterminate the species. In Mexico and Brazil, state authorities have sent out teams equipped with flame-throwers, cyanide gas and dynamite. These vampire posses have gone into infested caves and mine shafts and wiped out thousands of bats. But their efforts have been neither widespread nor particularly effective because of the innumerable inaccessible roosting areas in the mountains and jungles.

Though not the only bat to spread hydrophobia and other dread diseases, the vampire is the only species to attack and rupture the skin as a routine necessity for existence. Government inspectors south of the border are constantly seeking a solution to the problems raised by the "scourge of the night skies." Since the vampire causes countless thousands of livestock deaths every year all over Latin America — and, all too often, agonizing human death — naturalists there have been working overtime.

In Brazil, Dr. Augusto Ruschi, affectionately called the "bat man," has built his own bat grotto where he has been studying the vampire problem since the early 1950s. Traveling thousands of miles through back country, he has visited more than 2,000 vampire colonies. From a cave piled three feet deep with sick and dying bats, he isolated germs that would spread from bat to bat, proving fatal in four months. "But before I release the germs," said Dr. Ruschi, "I want to be sure they kill only vampires and not desirable animals."

Another pioneer mammalogist, Walter W. Dalquest of Texas' Midwestern University, has studied more than 10,000 vampires in their native habitat. "Painting the most frequently attacked areas of animals with crude oil or creosote might help control vampires," says Mr. Dalquest, who believes this method could result in wholesale starvation of the bats.

Up to the present time, however, all methods of vampire control have been either too costly or too laborious, but governments in hard-hit Latin countries continue their relentless efforts. Mexico has developed a vaccine that, hopefully, will enable cattle to resist rabid bat in-

fections. The vaccine is in its infancy, however, and officials are still awaiting conclusive results — anxiously since the immunity from a vaccine developed in Brazil a decade ago wore off in a few months.

American scientists have been no less arduous in their efforts to halt the spread of the virulent disease. A vaccine was recently developed by Norden Laboratories. Called Endurall-R, the vaccine has been effective not only in dogs, cats and livestock, but in many forms of wildlife as well.

Although the range of the vampire bat begins 250 miles south of the border, he has nonetheless been responsible for introducing the rabies virus into our own insectivorous bats in 44 states, thus endangering every species of American wildlife. Because of this threat, scientists continue to study this gruesome little rodent, hoping that if they can discover why he doesn't usually die of the disease himself they can one day gain new insight into the virus that attacks domestic livestock and, even more important, possibly find a less painful treatment for human rabies. □

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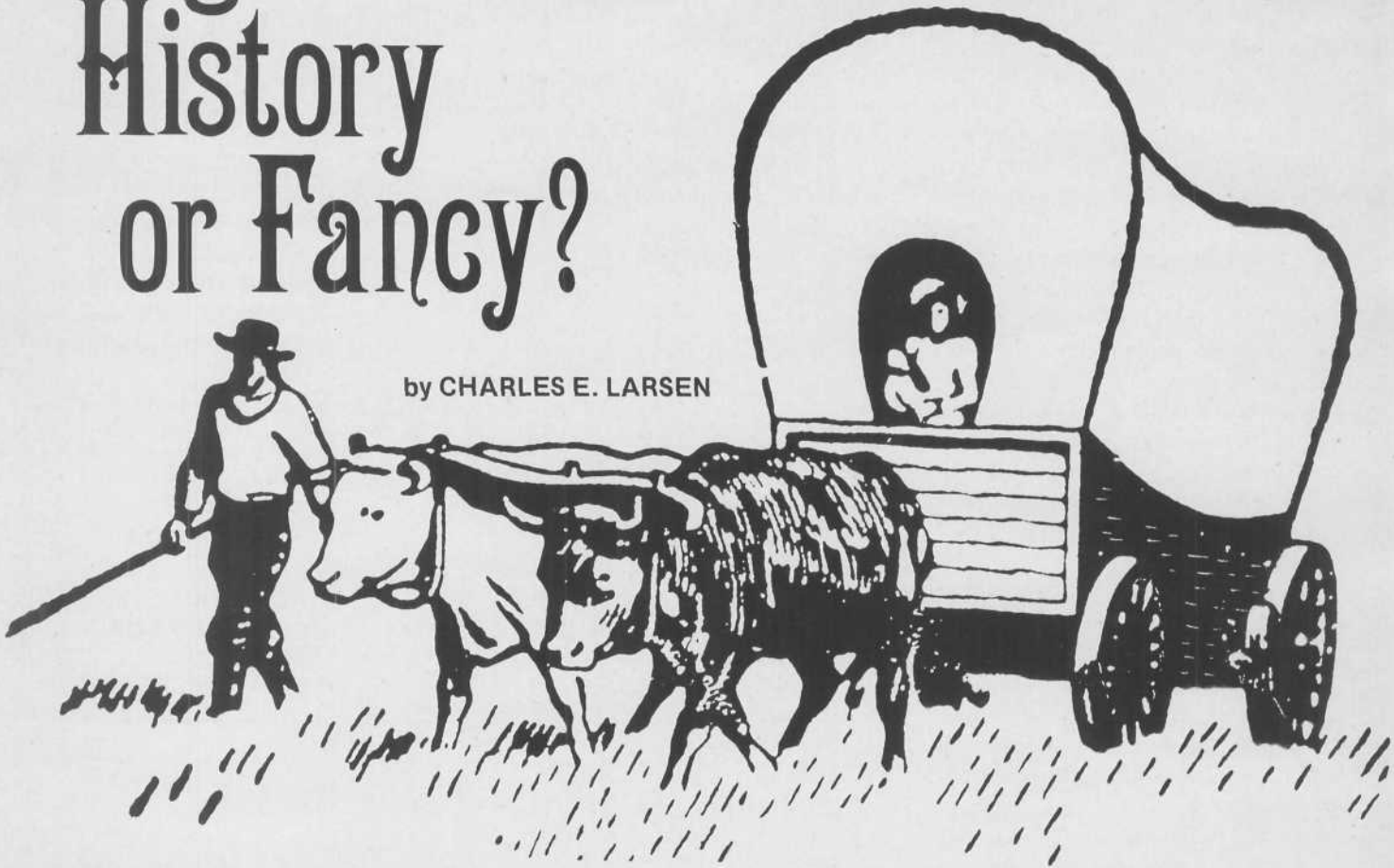
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Oregon's "Blue Bucket Mine" History or Fancy?

by CHARLES E. LARSEN



WHAT MAY BE the most elusive gnome in the history of the Oregon Territory could very well be the narrative of the "Lost Blue Bucket Mine." According to legend, members of an emigrant wagon train found gold in eastern Oregon Territory as they searched for water in the parched terrain near Malheur Lake in the year 1845. The fictional and factual aura which has mushroomed up about the yellow nuggets allegedly found in a stream bed has provided the basis for a wealth of muttered oaths, shattered dreams, sufferings, and sacrifices of treasure seekers who have attempted to trace the illusionary location of the lost gold. Perhaps Oregon's "Lost Blue Bucket Mine's" elusiveness is due to its non-existence — to the fact that it is a fancy rather than a historical fact.

It all started in late summer, 1845. The emigrants to the Oregon Territory that year little knew that a century later they would be best remembered for finding a gold strike so rich that it was rumored

that a young girl easily filled a blue toy bucket with it.

That summer was like any other hot, dry summer in the then unsettled eastern Oregon Territory. Marshall had not yet made his electrifying find of yellow metal in a creek outside of Sacramento. Enroute to Willamette Valley from Fort Boise, a large wagon train, under the guidance of Steve Meek, started through the Malheur Mountains of eastern Oregon in August, 1845. The train was comprised of about 200 wagons, nearly 1,000 men, women, and children, plus approximately 2,300 cattle, 800 oxen, and about 1,000 goats. According to Samuel Parker, one of the emigrants who left an unpublished diary written during the migration, it was August 24, 1845, when the wagon train left the Oregon Trail and proceeded over what was later to be called the Meek Cut-Off. Meek, the Wagonmaster, claimed the route was 200 miles shorter than the Oregon Trail.

The precise route traveled by the large

body of emigrants has been verified by their written records, and later by H.R. Reaves, a wealthy cattle rancher, who, in 1880 traced the route taken by the emigrants through the Malheur Mountains. In following the then 35-year-old trail, Reaves said the passing of the great number of wagons, the wheels cutting deeper into the wagon tracks of the one ahead, clearly marked the trail.

The emigrants crossed the Snake River and proceeded through the rough terrain along the Malheur River to the mouth of what is now Bully Creek. From there the wagon train traveled to N.E. Cottonwood Creek, forded Indian Creek and finally arrived at the Indian reservation at Agency Ranch. Leaving the sanctuary of the reservation, the emigrants struggled across the rocky, boulder-strewn country until they reached the North Fork of the Malheur River. Thirty-five years later, at a point near this encampment, Reaves found the gravestone of Sara Chambers, an emigrant who died enroute and was buried

there on September 3, 1845. This grave was to play a significant role in later searches for the gold. Today, the gravestone is said to be an important clue to the location of the gold.

On September 5, 1845, the emigrant party arrived at the Alkali plains northeast of Malheur Lake. This area is now known as Crane Prairie. Here, they encountered water which was poisoned and they pressed forward to a place known as "Stinking Hollows," a series of stagnant sloughs near Silver Lake. The party arrived there on September 11, 1845.

As the "Hollows" did not contain sufficient water for the needs of nearly 5,000 men, women, children and animals, a search party was sent out to find water. Within days the water scouts returned with word that water was ahead. Following the scouts' directions, the party moved northward and on September 16, 1845 the emigrants reached the mountainous country of the Crooked River. For the next two weeks the exhausted, parched, and disillusioned emigrants struggled through rugged canyons; over torturous hillsides, only to encounter a succession of dry stream beds. An occasional spring or pool of water was all they found for their parched throats. Parker, in his diary, states that between September 23rd and September 30th 18 members of the party died.

Finally, the worn-out emigrants arrived at the mainstream of the Crooked River. They followed it to the Deschutes River, arriving there on October 2, 1845. After a tedious and time-consuming trek across the high canyon walls of the Deschutes, the wagon train arrived at The Dalles one week later.

In his diary Parker had this to say about the 45-day journey through the wilderness: "Pen and tongue will both fall short when they go to tell the suffering the company went through."

If gold was found by any one of the emigrants during their trek through the wilds of eastern Oregon Territory, Parker was unaware of it. He makes no mention of it in his diary. Neither do Hancock nor Herrit, two other emigrants who wrote of the long struggle through the dry, desolate wilds.

The first published account of gold being found by the emigrants appeared in print 24 years later, in 1869. An article written for the *Portland Bee*, by D.S.

Clark, said the party found gold "near the head of the Malheur River, in a small stream divided from the Malheur by a ridge." Clark claimed "the stream ran southwest and was supposed to be a branch of the Malheur." The discovery was laid to Daniel Herren who made the find when he was out rounding up cattle lost from the train. According to the article, Herren espied shining yellow metal among the rocks in the bed of a stream. He carried the yellow stones to camp as a curiosity. Another nugget is said to have been found by another emigrant who brought it to the wagon of a Mr. Martin.

Daniel Herren, a youth of 21, was traveling with his aunt and uncle, Mr. and Mrs. John Herren and their 12 children. John Herren's version, told by him years later, was that his nephew found the gold in some muddy cattle tracks. Daniel Herren died in 1907. In his obituary, carried in the *Portland Oregonian*, he was given credit (at least in 1907) for the Meek Cut-Off gold find.

There is another, yet contradictory, version of the Herren gold find. W.J. Herren, son of John Herren, said it was not his cousin Daniel who found the gold, but that he and one of his sisters, while out looking for water, found the nuggets. The two placed the nuggets in a blue bucket his sister was carrying and returned to camp.

Upon the barren branches of these statements have bloomed the legend of the "Lost Blue Bucket Mine."

In 1854 Daniel Herren is reported to have retraced his steps over the emigrant trail in search of the bonanza he located nine years earlier. His hunt was unsuccessful. Six years later, in 1860, evidence of gold was found in the Malheur region by Captain Waller as he surveyed a route for a road through eastern Oregon. His findings sent three search parties into the area; two in 1860, and the other in 1861. Sixty-eight years later, in an article published in August, 1829, the latter search party was reported as looking for the "Lost Blue Bucket Mine."

But the story of the "Blue Bucket Mine" preceeds 1928 44 years to 1885 when the first published account of the gold appeared in the *Portland Oregonian*. This earliest story possibly defined and crystallized the legend which has persisted to this day. Since then numerous articles have appeared in

print about the "Lost Blue Bucket Mine." Of 11 stories in Oregon's metropolitan newspapers, seven of them have been printed in the *Portland Oregonian*. Printed over a span of nearly a century, the articles have sparked as much interest in eastern Oregon as has been generated in the Southwest by tales of the Lost Pegleg and Lost Dutchman mines.

The original story published in the *Oregonian* relates that a young emigrant girl, while washing at a stream, chanced to perceive an abundance of yellow metal rocks in the clear water. She selected a number of them and returned to the wagon train. She is said to have left her little blue bucket near the stream, or, she filled the bucket with the nuggets, depending upon the tale. It was subsequently found that the rocks were gold. Yet, it seems that no one was able to find the stream.

There are many versions to this legend. One is that the girl grew up, became Mrs. Chapman who resided in the Willamette Valley. One day, as a housewife, she came upon her long forgotten playthings in an old trunk. Among them were the yellow rocks she discovered as an emigrant girl. One rock was said to be large enough to be used as a doorstep.

Another tale is that some of the adult emigrants saw the yellow rocks brought to camp by a girl, but when one of the drivers pounded it on a wheel rim it did not have the right "ring." The rocks were said to be used as sinkers by a party of the emigrants.

Stripped of all the allure which commonly surrounds narrated history, the above imparts but the briefest of scents for the treasure hunter to follow. Gold fever did not grip the Oregon Territory in 1845 because of the emigrants' "discovery" of gold as it did in California three years later when Marshall made his find. The emigrants must have been aware of what gold was. The women wore wedding bands of gold; men possessed watches with gold cases, and both must have been familiar with jewelry fashioned from gold. Any one of them easily could have identified the soft, bright metal had they seen it. Yet, not one of the written records made by the pioneers contain any reference to the yellow metal being found.

Most amazing, though, is that prior to the publication of newspaper articles,

Continued on Page 46

ICE BOXES IN

TO THE UNSUSPECTING traveler, the Desert Country might seem nothing more than a super-heated, super-dehydrated exposition of nihility; just another uninteresting, uncomfortable obstacle to surmount in the fixed thought of getting from one place to another with the least possible expenditure of time.

But the astute observers, those who are willing to pause and share in the poetry of nature, have come to know that just about every square mile of Desert Country offers an astonishing range of natural theatrics, quantitative from drib-

lets to gushers, from the minute to the magnificent and from the serene to the fearsome. Everything that graces the span between Heaven and Hell can be found upon the desert. Indeed, some insist that the desert is a delightful combination of both.

Perhaps some of the most unbelievable architectural extravaganzas of the desert are found beneath its sun-blistered floors — in the ice caves — where great colonnades of crystalline ice formations occur and persist in growing and maturing in underground tempera-

tures of 32°F or less, even though the surface temperature may well exceed 100°F.

When one is initially introduced to these "ice boxes" in the desert, his first question is easily anticipated. "How did it get there . . . ?" When he is told that it all started with a volcano, the informer gets one of those looks like maybe there's something besides water in his canteen. But in the case of the malpais, the Desert Country lava flows, volcanic activity is exactly how most of the ice caves were born.



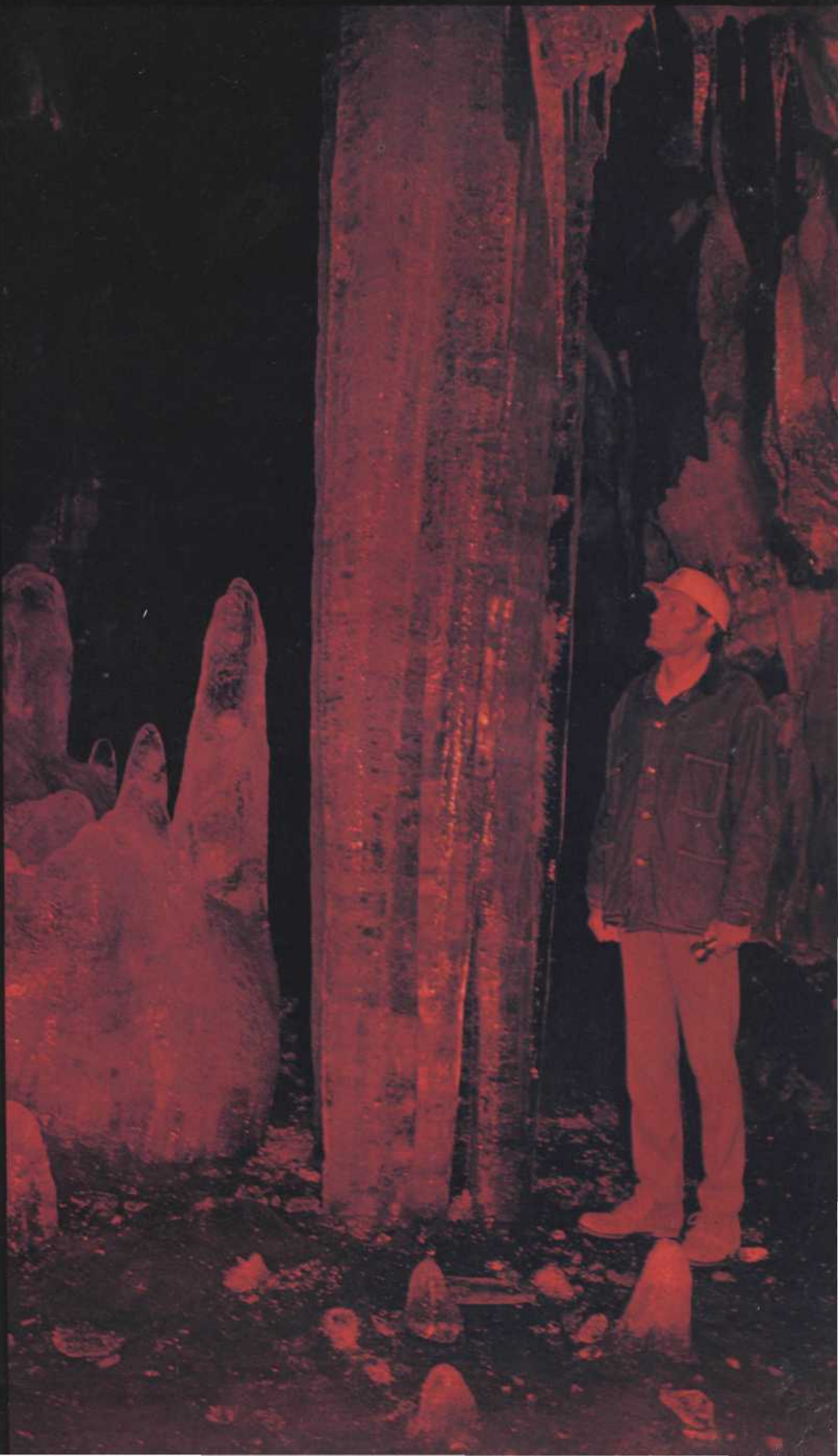
THE DESERT

by MEL LEWIS

As the super-heated lava flows from its point of origin and follows the slope of the land, it gradually cools and solidifies. As the cooling and solidification processes take place, the surface hardens first and the cooling and hardening progresses much more slowly as it extends through the depth of the flow. The net effect is that a surface "crust" or "roof" is formed comparatively quickly and remains stationary while the underflow continues to move.

When the source of the flow subsides and the lava beneath the crust continues to flow toward lower ground, the level drops away from the roof, the side walls progressively lower and thicken. Finally, when the flow completely ceases, the floor is formed, and thus, what is colloquially termed a "lava tube" is created. And so the genesis of our ice caves has come to pass. Some of these lava tubes are just inches beneath the surface and not much bigger in diameter. Others are at depths approaching 100 feet and may be nearly as large in diameter. However, if there is such a thing as an average lava tube, it would probably be found at 25 to 50 feet below the surface and a little less in diameter. Depending upon the slope of the land and the volume of lava flow, some tubes are less than 100 feet in length, while others may extend up to a mile or more. However, these latter lengths are rare. Most of the lava tubes we have explored have extended from 300 to 500 feet, so perhaps we could pin the label of

Left: The Nativity: The spiritual atmosphere of this Crystal Ice Cave formation exemplifies its namesake. Right: Jim Papadakis, who almost single-handedly developed Crystal Ice Cave, stands beside The Crystal Tower. This formation is between 300 and 500 years old and stands more than 25 feet tall.



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"average" on those. But to be sure, throughout any of the Desert Country malpais, lava tubes are numerous, and many of these have evolved into ice caves.

A malpais ice cave is born with the chill of winter when cold air sinks to the subterranean depths of a lava tube, or rift, that has no secondary opening that would allow the freedom of air circulation. Water enters the tube through seepage from rain, melting snows, or from condensation, and upon reaching the cold air freezes solid. During the hot summer months the warmer surface air tends to "float" on top of the colder, heavier subterranean air, and thus a cold air "trap" is formed. The mixing of the warmer air with the cold air is slight, but when such mixing does occur some of the ice melts, and in so doing contributes to its own growth, because the melting process absorbs some of the heat. The net effect is that of stabilizing the air temperature within the ice cave at 28°-32°F, allowing the ice formation to increase but not to decrease.

The prehistoric Indians who frequented the malpais areas were quick to discover these "desert ice boxes," a fact attested to by the various petroglyphs and pictographs oftentimes adorning the walls within the depths. They utilized such natural refrigerators for the storage of wild game meat and other perishables, and quite possibly as an occasional refuge from the hot desert sun. Indeed, these prehistorics, as well as modern day "boondockers," could oftentimes find themselves a refreshing drink of ice water — *on the surface*, even during the hottest days of summer! An outstanding example of such natural "water coolers" is Hoodoo Water Hole, located in the serrate lava flow of Craters of the Moon National Monument, Idaho. Hoodoo has been used for centuries as a desert ice water fountain by prehistoric Indians as well as present-day cowboys, and it has never failed to fulfill its usual assignment.

Ice water holes, like Hoodoo, where water temperatures remain at about 34°F throughout the summer months, occur in "sinks" in very rough and broken lava flows where considerable amounts of snow collect during the winter. Some of the snow sifts and filters down into the crevices and voids between the rocks where the cold temp-

vent of a 2,000-year-old volcano.

As the story goes, Crystal Ice Cave was discovered by two spelunkers who, in 1956, were exploring the depths of the Great Rift. The Great Rift is a national landmark which appears as a 40-mile-long crack in the surface of South Central Idaho's landscape. A lost flashlight, accidentally dropped through a small hole in the ice floor of a particularly deep abyss, led to an astonishing discovery. In attempting to recover the flashlight, the two spelunkers crawled through the small hole and found that it suddenly expanded into a spacious cavern — The Crystal Cave.

For the most part, deaf ears were turned to the spelunkers' account of what they had seen. Others who listened to the stories of giant ice formations beneath the desert floor refused to believe them, and Crystal Ice Cave was unglamorously dubbed "Liars Cave." With such an uninviting title, it went unexplored for several years. Then a young, devoted geologist, Jim Papadakis, the same Jim Papadakis who was the original developer of Texas' magnificent Caverns of Sonora, heard the story of the cave. Like a home-seeking gander, Jim struck a true vector for Aberdeen, Idaho where he enlisted the aid of two young spelunkers to guide him to the area. It wasn't long after making a provoquant decent by rope into the hungry yaw of the Great Rift that the three found themselves slipping, sliding and worming their way through the previously discovered ice passage. In silent awe they emerged into the cavern, into an unbelievable fantasia of towering crystal clear ice sculptures, accentuated by uncountable thousands of sprinkling delicate ice crystals, each winking back at their flashlight beams like a heavenly gathering of multi-faceted stars. At that moment Jim Papadakis' course was unalterably set. By one method or another, regardless of what the effort might be, he would open the Crystal Ice Cave to the public. Jim Papadakis did exactly that.

From the Fall of 1963 through the Summer of 1965, an unusual labor of love and devotion to purpose took place. By the determination in his heart, by the sweat of his brow and by the muscle of his back, Jim Papadakis almost single-handedly blasted, drilled and just plain dug the 1,200-foot-long passageway

eratures of winter transform it into an ice base. Once the ice base is formed it remains protected from summer temperatures by the poor heat conductivity of the lava. (Indeed, porous lava is one of the most efficient insulation materials known to man.) Surface water, collecting from melting snows or summer rain, pools on the permanent ice base and is cooled to just above freezing, thus offering the grateful traveler a welcome drink of ice water from a most unlikely place.

Many outstanding examples of "Desert Ice Boxes" exist; each and any of them well worth visiting. In the case of the relatively unknown ones, an interesting adventure in exploration is well in order. There are several very interesting "ice boxes" within the boundaries of Idaho's Craters of the Moon National Monument. All have well marked trails for self-guided tours. Ranger-naturalist guided tours are also available. Perhaps the least known "ice boxes," but still well worth visitation, are located in the great malpais south of Grants, New Mexico. Relatively unexplored ones exist in the Jornada Del Muerto area, also of New Mexico, just north of White Sands National Monument. If you have an adventurous turn of mind, the New Mexico malpais offer fine opportunities for discovering your own "ice box."

The Shoshone Indian Ice Cave, located 17 miles north of Shoshone, Idaho, on Highway 93, is singularly unique because of its massive ice block. For many years the Shoshone cave was used as a commercial refrigeration plant, and as late as 1930, was used as a supply source for ice for several surrounding towns. Before that, the ice cave was used for many centuries by the prehistoric ancestors of the Shoshone Indians. The Shoshone ice block proper is 1,000 feet long and varies in depth from eight to 30 feet. Before its use was commercialized, it was nearly twice its present size. Shoshone Ice Cave is now a privately operated tourist attraction, and well worth visiting.

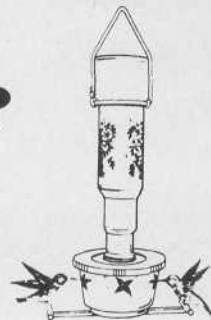
If this writer were asked to bestow the title of "Most Decorous" upon any ice cave, the honor would most certainly go to the magnificent Crystal Ice Cave, located off Highway 39 between American Falls and Aberdeen, Idaho. The spectacularly massive, yet incredibly delicate ice formations within Crystal Cave are incongruously located directly inside the

along the Great Rift to a depth of 160 feet to open the public's access to the Crystal Ice Cave.

Located within the Great Rift National Landmark, it is a fissure cave, not the more common lava tube type previously mentioned in this article. Crystal Ice Cave is the only one of its kind in the world open to the public. Where else would one find such a magnificent monument to nature — except in the Desert Country?

What was once the white hot throat of a seething volcano, symbolic of utter destruction, now stands as a place of sublime tranquility, a subterranean garden of towering clear ice pillars that catch, magnify and reflect even the tiniest pinpoint of light into the most colorful theatre that Nature ever devised. □

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Left: Three beautiful kilns, built of green rock, lie west of Bristol Well. They have endured time and the elements well.

Opposite Page: At a former smelter site, a wall and old timbers were used by S. E. Hollinger, now of Pioche, to build a stable for his horses. Hollinger ran cattle in the valley many years ago.

Photos by Jerry Strong

Nevada's Bristol

OUR ENTHUSIASM for exploring Nevada's backcountry has never flickered, much less dimmed, over the many years we have traveled her desert trails. Each trip is a new adventure into unfamiliar land where, sometimes, there are unexpected surprises to savor. Such was our luck when we headed for the Bristol Range in Lincoln County.

Rich silver deposits had been located in the Bristols during the late 1860's; but the organization of the properties into the Blind Mountain Mining District wasn't accomplished until 1871. Five years later, when the Day-Jackrabbit deposits were discovered, the original district was divided and renamed — Bristol and Jackrabbit.

Less than four miles apart as the crow flies, 8,000-foot peaks separated the metropolis of each district — National City and Royal City. It was these century-old ghost towns we had come to

visit, but the desert crossroad of Bristol Well provided the "piece de resistance" for this backcountry adventure.

Eleven miles north of Pioche, on the eastern side of the Bristol Range, Highway 93 turns due north and a dirt road will be seen leaving the highway on the left. It is a section of a former main road and gives access to the townsite of Royal City.

This junction is also the site of Stonehouse — a stage stop for southbound runs enroute to Pioche. Little remains except pieces of purple glass, fragments of old dishes and broken bottles. We did find one old-style enamel coffee cup almost buried by a sagebrush. It was added to our collection of "junque."

Looking west from Stonehouse site, the Day-Jackrabbit Mine lies prominently at the base of the Bristol Range. A short side road leads to the mine but a locked gate bars entry. Signs warn: "No hunting. This property patrolled. Tres-

passers will be prosecuted."

Royal City townsite (later known as Jackrabbit) lies a half-mile north. Nothing remains as a very destructive fire apparently raged over the site. Where buildings once stood, heat-scorched bedsteads, stoves and other items rest in the debris of charred wood. Never "city-size," the little community supported several businesses, a saloon and, briefly, a post office.

National City and the early National and Hillside Mines are located on the opposite side of the high mountain peaks above Jackrabbit. To reach them, it is necessary to "travel around the mountain." Just short of a mile north of Jackrabbit turnoff, a sign on Highway 93 points left and states — "Bristol Well 7 miles, Sunnyside 46 miles." A good graded road wanders through the hills, crosses Bristol Pass, then gradually turns south to a junction with the Bristol Mine Road. Signs point the way.

We had hoped to meet Superintendent Bosch at the Bristol Mine and tour the workings. Upon arriving in Pioche, we were saddened to learn he had suffered a fatal heart attack a few days earlier. Since we wanted to see, if possible, the site of National City (later Bristol City), we hoped to find someone at the mine to give us the necessary permission.

It was a beautiful drive on a narrow, graded road which wound up the mountain. Along the way, we found the gate open so continued through pinyon pine forests and out across exposed ridges. Far below, great valleys and mountain ranges spread out in all directions. In the distance, a fast-moving storm front was pushing dark, cumulonimbus clouds across the sky. The view was tremendous.

Rounding a curve at 7,000 feet elevation, we drove into the mining camp. All the buildings were vacant but appeared to be in good condition. Located in a narrow canyon, this was obviously



Country

by MARY FRANCES STRONG

part of "old Royal City." Swings and slides at the schoolhouse seemed to wait expectantly and a large firehose stood handy in case it was needed.

By the time Jerry finished taking pictures, the storm clouds were touching the higher peaks and a snowflake or two was in the air. Above the camp were tremendous dumps, more buildings and assorted mining equipment. It was obvious the Bristol Silver Mines had been in and out of production over a long period of time.

More than 60 locations were made when the Bristol District organized in 1871. The National Mine Company promptly built a small furnace at Bristol Well to handle ores from the numerous properties under development. There were many problems and easily obtainable ore ran out a few years later.

A new "boom" began when the rich Hillside Mine was located in 1877. The new mining company took over the Na-

tional Mine, well and smelter, then erected a 12-stamp mill. New discoveries the following year resulted in the "Bristol Mines" becoming important producers. In the meantime, 1876, the Jack-rabbit District had organized and quickly joined the "important producer" ranks. Name changes of the town and post office resulted in National City becoming Bristol City and finally Bristol. The post-office was first called Bristol, then Tempest in 1922 and finally Bristol Silver until its final closure in 1952.

All this activity in the Bristol Range was not going unnoticed by the citizenry of Pioche. Casting an interested eye

At the cemetery south of Bristol Well, we counted 14 graves. Only four were marked. This one had the largest marker and was made from local stone.





Top: Above the main dump and mining camp, an aerial tramway can be seen crossing the crest of the Bristol Range. It carried ore from the Bristol Silver Mines to the railroad at Jackrabbit. Bottom: A windmill stands a lonely vigil at Bristol Well—once a busy crossroad with a population near 400.

northward, entrepreneur W.B. Godbe (known locally as Pioche's benefactor, though far from loved by all), decided to build a 15-mile extension of his Pioche railroad which would run up the valley to the Jackrabbit Mine. He felt such a line

would bring considerable business to his nearly-completed smelter east of Pioche. Godbe was a man who believed in having a finger in every pot.

Incorporated as Pioche-Pacific Transportation Company, construction was be-

gun on the narrow-gauge line which quickly became known as the "Jackrabbit Road." October, 1891 found the smelter and railroad ready for their first run. A small Shay engine, pulling 25 ore cars, left Jackrabbit with several "toots" on the whistle and shouts of encouragement from watching miners.

There was great excitement within the crowd waiting at Pioche. Such events were always well-attended. Speeches would be made and ample booze would flow. The first run on the Jackrabbit Road did not end as planned; but it was one that would never be forgotten. About four miles north of Pioche, 14 cars derailed in a horrendous smashup!

Overcoming the many problems, mining continued at a rapid pace until 1898 when the price of silver fell so low it could not be profitably mined. The Pioche smelter ceased operations and trains no longer traveled the Jackrabbit Road. It proved to be a short period of quiescence. Good copper ore was found at Bristol in 1901 and all systems were go!

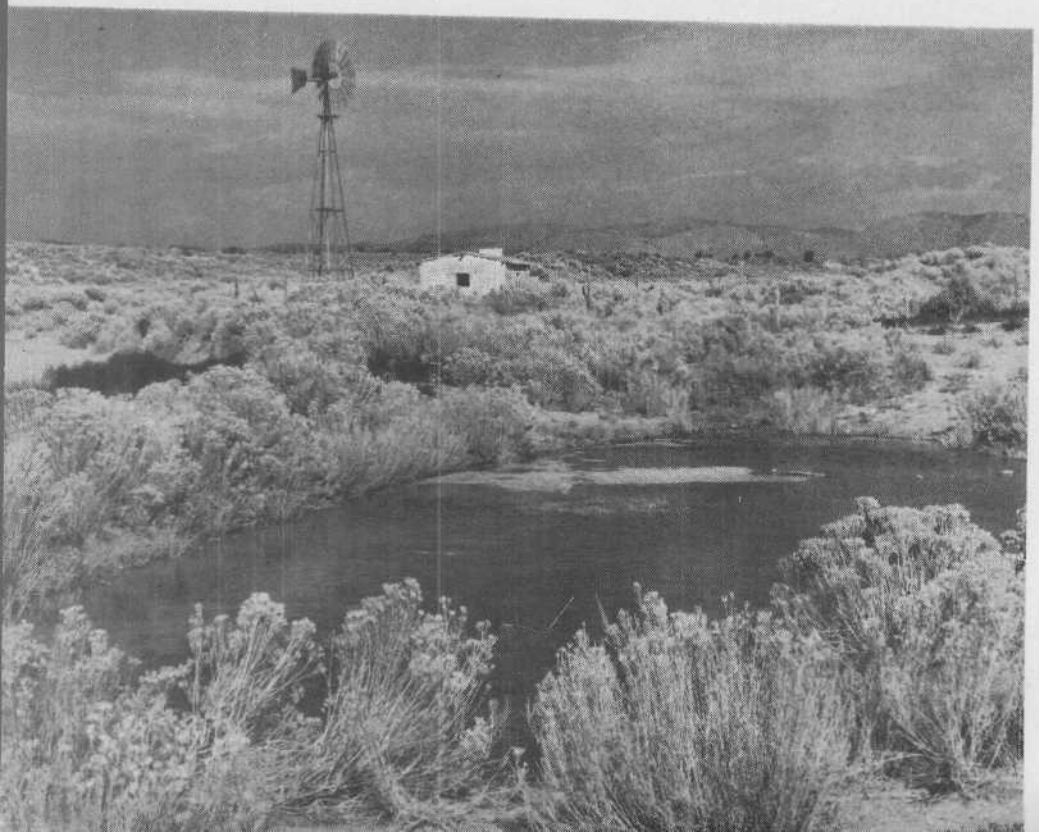
In 1911, the Bristol and Jackrabbit properties were merged into the Day-Bristol Consolidated Mining Company. An aerial tramway was built two years later to deliver ore from the Bristol mines into railroad cars at Jackrabbit.

Down through the years the Bristol Silver Mines (as they are now collectively known) have had a number of owners. A great deal of ore — silver, gold, copper, zinc, manganese — has been produced. The Nevada Bureau of Mines credits the district with a grand total production of \$17,209,300 during the years 1878 to 1958. However, there has been considerable mining during the ensuing years. The Bristol Mines have done their share in helping the economy of Lincoln County.

Finding no one at the mine, we quickly headed down the mountain. The storm clouds looked less threatening and scattered patches of blue were showing in the western sky when we reached the valley floor.

"Do you want to look over Bristol Well?" inquired Old Dad.

"You bet I do," was my quick response. A mile later, we were standing in front of three of the most beautiful charcoal kilns we had ever seen. Oh, I know some of you will probably say — "See one and you have seen them all,"



Indians, Cow

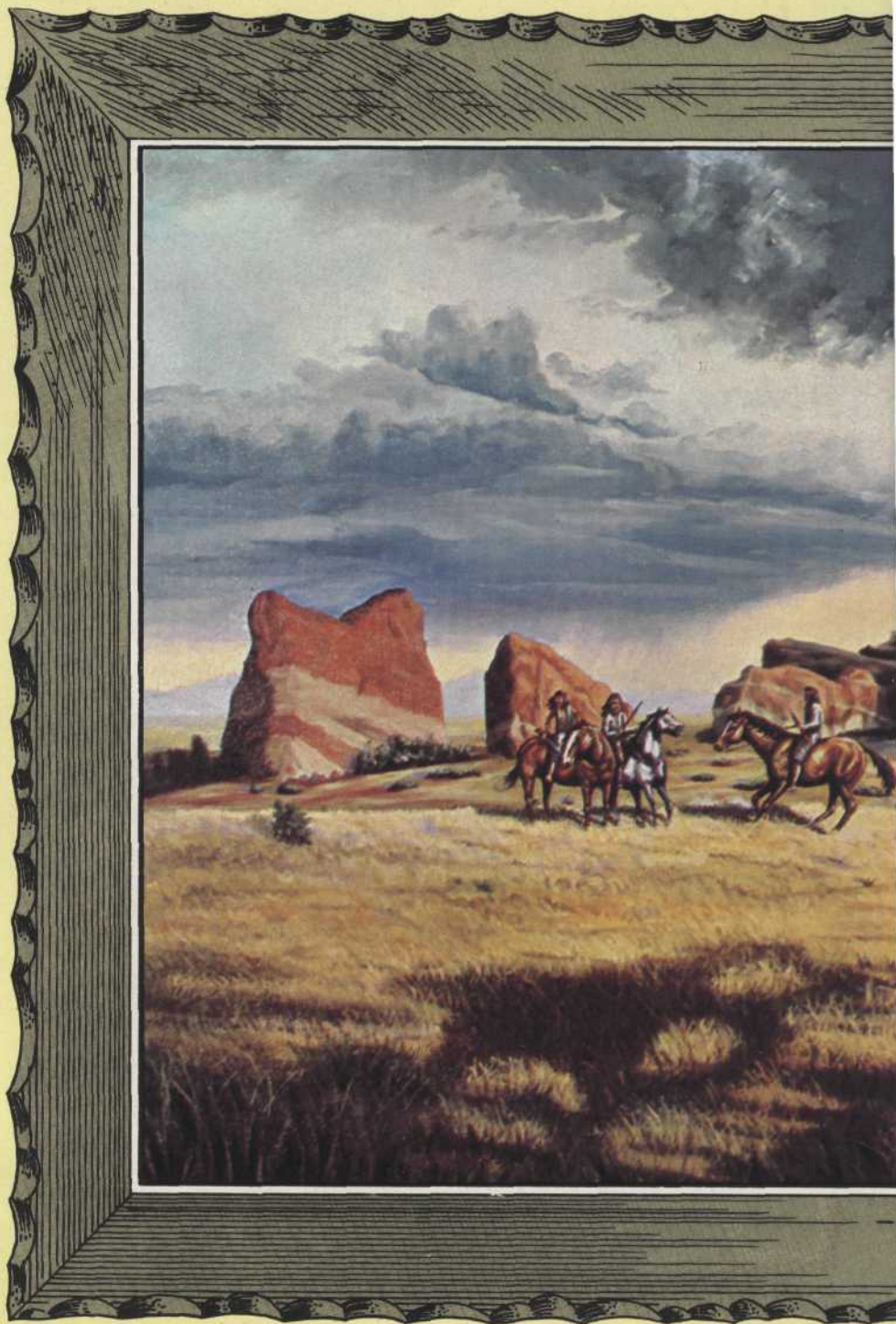
SINCE *DESERT* Magazine's inception, the West has been portrayed on its pages by many well-known artists including: Ted DeGrazia, John Hilton, Clyde Forsythe, Al Nestler, Brownell McGrew, Burt Proctor, Fremont Ellis, Olaf Wieghorst and Bettina Steinke. Now, after an absence of almost ten years, artists and their artistry will again appear in *Desert*.

This month we introduce a group, The American Indian and Cowboy Artists Society, whose members will work to bring the readers authentic Western art. Upon questioning a member of the society as to the purpose of the group, he replied:

"You ask the how and why of the American Indian and Cowboy Artists Society? Well, that's easy. We all have a special feeling about the American West. Really more than a special feeling—a love affair. A love for its mountains, rugged, stately and always beautiful. Its plains, reaching from the Missouri to the foothills rolling endlessly in undulating waves to the horizons. Its deserts, hot and hostile, sparse of water but long on wondrous and tenacious vegetation and seemingly angry as it defies with thorny spike the sun and all who would approach too closely.

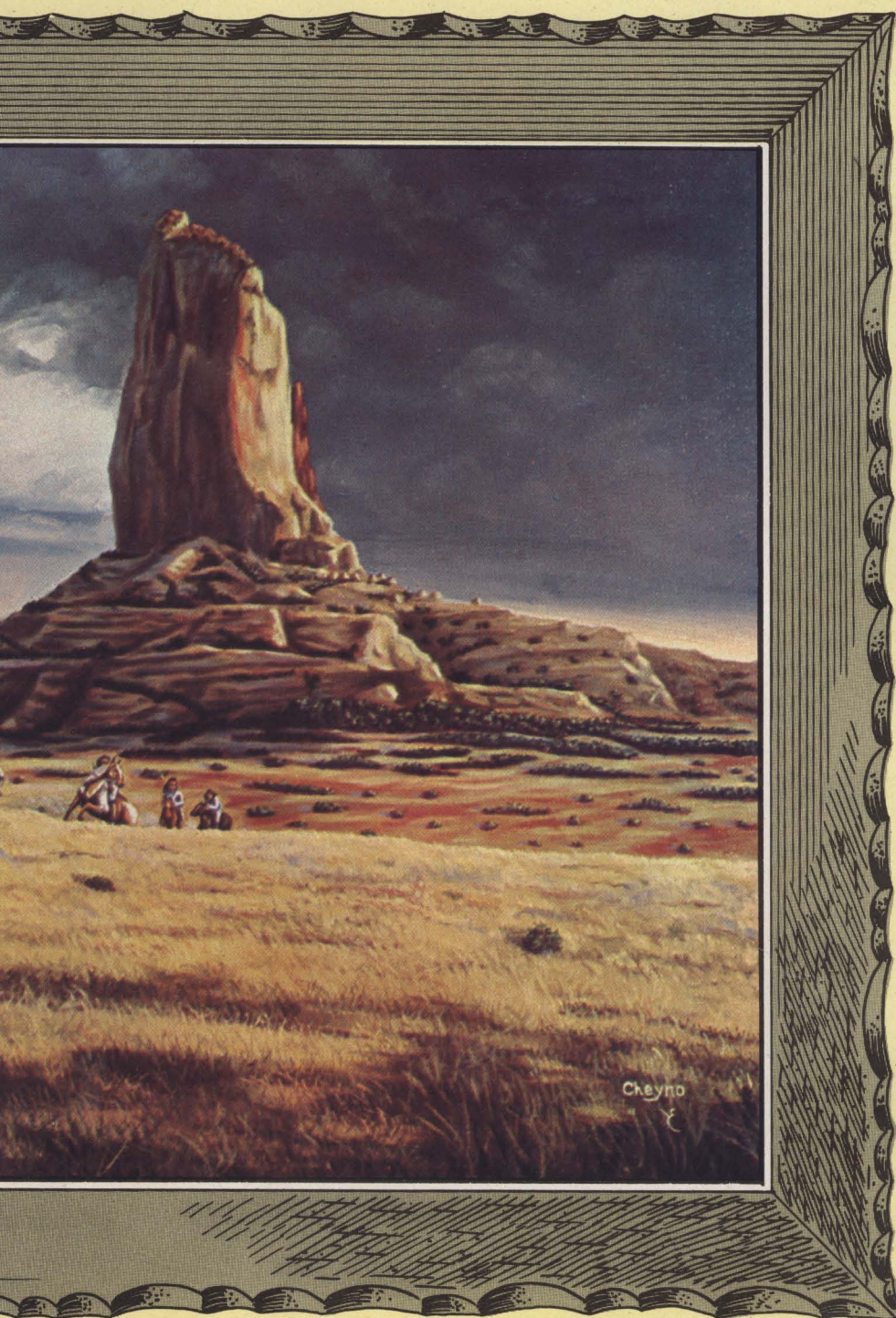
"Lastly, its people, past and present, of differing color and ideologies, who by their courage both in defense and in conquest were makers of history and of legends that will not die. Where else in all the United States can you find so varied a land and climate, so different in its cultures and so many legends of peoples who lived and died by a code in which we still believe?

"Artists who paint the American West, both red and white, share a bond through their visual essays of the times, deeds and places which epitomize the



Children of the Wind

Boys and Art



Oil, 36"x24"

legends and history of their common heritage. Equally important, they record the ideologies, code of conduct and work ethics of the people. Strangely, even though this common bond exists between red and white artists, each group invariably tended to display their works separately. The American dream has always envisioned peoples of all cultures working together in harmony. So, why not join these two groups together in common cause and purpose. Combined they could show their works to a greater advantage and provide an interesting contrast of style and background as reflected by their heritage.

"Just a year ago, in April of 1974, a nucleus of Western artists, six of Indian heritage and two of Caucasian ancestry, joined together as the American Indian and Cowboy Artists Society. It was a small group and a small beginning but its ambitions and the principles set forth were large. There was unanimous agreement that the AICA must always represent those ideals in which Americans believe. This is reflected in the opening statements of the AICA By-Laws:

PREAMBLE

The members of this Society dedicate themselves to the appreciation of our heritage from the American West through the visual portrayal of the life styles, ideologies and the courage of the peoples of the American West, both Indian and Caucasian, and furthermore,

Through the united efforts of the members it is the purpose of this Society to demonstrate and promote the benefits and potentials of good will and trust between men of good faith and character of its Indian and Caucasian membership.

"Membership in the AICA requires excellent professional skill and authenticity in detail. For example, paintings are too often seen which depict Plains



*Going
to the
Sing
at Chinle*

*Oil,
28"x22"*



THE ARTIST
Y. Elbert Cheyno

Sometime spokesman for the American Indian and Cowboy Artists Society, "Easy" Cheyno humorously considers himself a minority conglomerate being of English, German, Japanese and Cherokee ancestry. Born a Missourian, his formative years were spent in the Plains States when cattle and farming were the main life supports. Aviation and art have been absorbing interests and vocations. He has authored over fifty socio/economic/technical treatises on transportation. In art, he began his art studies at the Chicago Art Institute and subsequently under the tutelage of A. Akimoto, John Conent, Frank Moratz and Catherine Carlson. To Easy, art is a catalyst between the past, present and future. He firmly believes that artists have the responsibility, both morally and psychologically, to record their impressions in a manner which will aid in the continuing regeneration of the moral fibre of our peoples.

Indians riding into battle wearing war bonnets. This is ridiculous, no Indian in his right mind and exposing himself to danger would deliberately encumber himself with anything likely to impede his sight or actions. Or for that matter, the unlikely scene of an 1890 Montana cowboy astride a California Mission saddle that somehow was even double cinched. The AICA has little interest in artists, however skilled, who do not know their subject intimately or who occasionally paint the American West as a whim or because they think it will sell. Membership is only open to those who are dedicated to the Western tradition.

"Today there are 13 members, about evenly divided between Indian and Caucasian ancestry. All but one were born and reared west of the Mississippi. Their backgrounds are as varied as their style in painting, from reservations, both north and south, former cowboys, sons of early ranchers and horse traders.

Several are commercial artists, others augment their incomes as authors, lecturers, teachers and consultants. Individually, all enjoy some distinction as artists of the American West. A few are approaching the point of national attention in the art world.

"Each artist strives to depict those things which to him represents an America worth remembering and therefore worth recording. This results in a diversity of styles and media, from watercolor to oils and sandpainting. Moreover, their art works are symbols. Symbols of a way of life and a time when men, both red and white, knew hunger and thirst, privation and fear—yet were not afraid. Their work is the fruit of different ethnic and sociological backgrounds and consequently communicate in different idiom, yet speak the common tongue of our heritage. They communicate, however, the commonality of men and the human spirit, thus bridging the

gap of misunderstanding and apprehension which often rises between men of different faiths and origins.

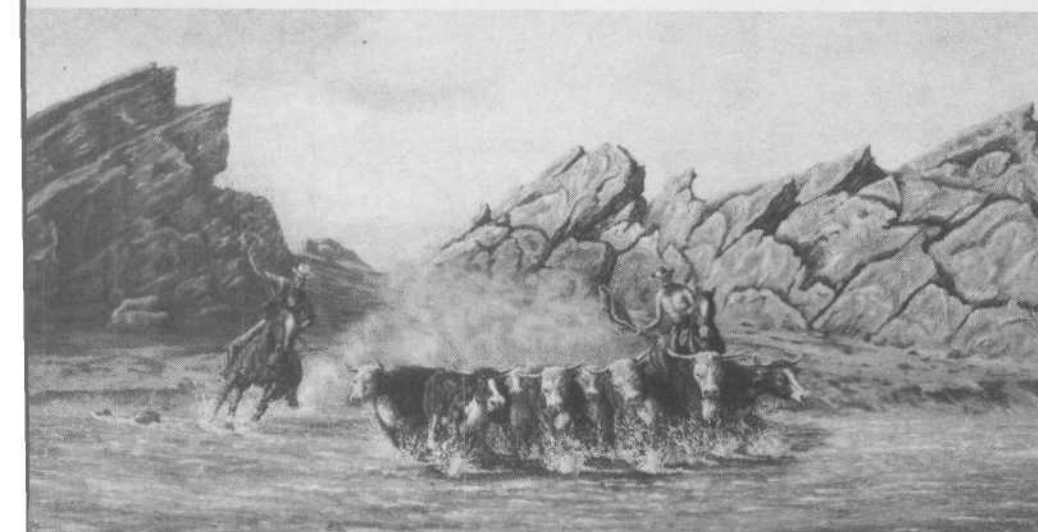
"In short, through the artistic effort of the members of the American Indian and Cowboy Artists Society we greet all men of tolerance and good will with the wish that you may always walk in the Rainbow Path."

Editor's Note:

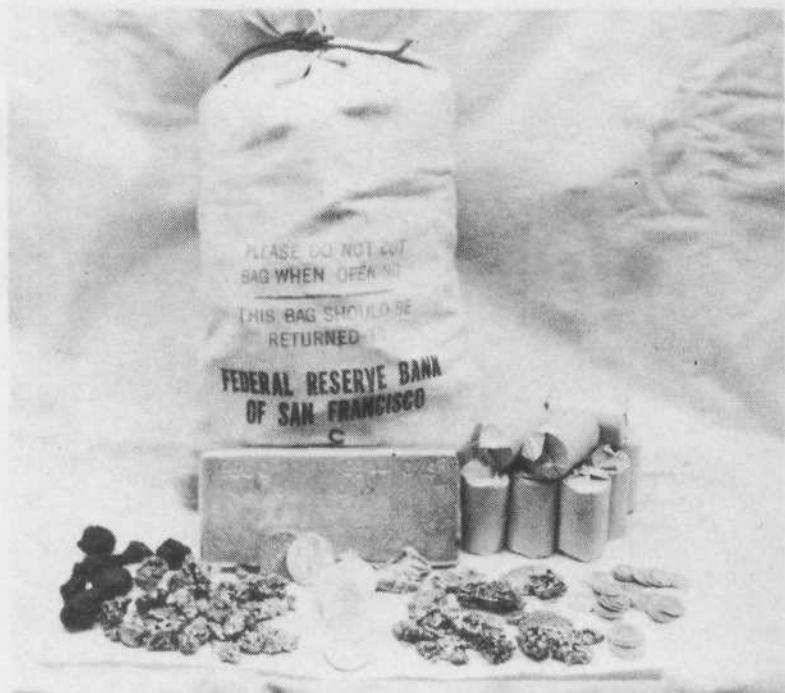
From time to time, Desert Magazine will feature selected works of the members of the AICA. We hope these reproductions will provide readers an opportunity to rediscover the American spirit and enjoy a quiet moment of revitalization of that courage which made the American West a legend in its own time.

Small Time Rustlin'

Oil, 48"x26"



Mr. Pegleg and his Gold



In the letter printed in the June, 1974 issue, I promised to send some photos of black nuggets and a few bits of interesting news. Here they are:

Anyone who has kept up with my correspondence on the Pegleg black gold can readily understand my interest in gold per se. In the beginning I knew, of course, what gold was, but after the discovery, through prolonged study, I extended my knowledge of gold, its history, myths and legends from the beginning of civilization to date. It was a fascinating education which, along with the black gold, has made a profound impact on my life.

Possession of, or the lust for, gold has changed the lives of many men. The destiny of nations and even the course of world history have been dramatically affected by this precious yellow metal. It has always carried the power to exalt or inspire men — or to corrupt and degrade them.

For me, it was love at first sight, from that moment I held the first black nuggets in trembling hands — and the romance has never ended. I have tried to use the gold and its proceeds wisely and have, I believe, succeeded. I am not superstitious, but early in the game two incidents occurred that changed my thinking and solidified my faith in gold. Perhaps the Almighty was looking over my shoulder. Here is the story.

My first reaction, long ago, was to turn all the black nuggets into hard cash, something I could put in the bank or into something else. I was just a little fearful of the possession of so much gold, and I've previously described how I disposed of some of it. From the very first proceeds I bought \$5,000 worth of stock in an industrial company on the advice of an "expert." Three months later the company went bankrupt. On the very day I got word that my investment was wiped out, I happened to pass a jewelry shop and saw a U.S. \$20 gold piece displayed in the window. The price was a few dollars above the

value of the gold. I bought it, thinking, gold is gold and there is no way they can ever wipe out all the value of this.

Subsequently, I bought land with some of the gold money and made other investments, most of which turned out all right, but I never forgot the lesson of the worthless stock. Instead of cashing in all of the gold, I kept a quantity of the black nuggets. I remember mentioning in one of my early letters to *Desert* that I still had about \$25,000 worth of black nuggets. That was a rough estimate as I had buried what I kept (go ahead and laugh) and subsequently found and added more nuggets to the cache.

As most everybody knows, gold has increased somewhat in value while the "promise to pay" paper money and paper "securities" of most all the world's governments have decreased in real value.

I put my nuggets in canvas bags without weighing them, only estimating their weight by "heft" to be about 20 pounds per bag. I then put the canvas bags into heavy plastic bags which I sealed and buried, each one in a different place.

There was a total of nine bags. The actual weight was 28 to 32 pounds each instead of my estimated "heft" weight of 20 pounds each. Quite a difference! The exact total weight including the canvas bags (which would be less than a pound) is 272 1/4 pounds. At today's gold prices, my original estimate of \$25,000 worth of nuggets is considerably more. Certainly enough to justify my faith in gold as against paper values.

In addition to the cache of nuggets I also began to buy gold coins, mostly U.S. \$20 pieces or double eagles as they are called. I got them a roll or two at a time (20 in a roll) from importers who were getting them out of Switzerland in the late 1950's. The price was from \$45 to \$46.50 per coin. The coins were like brand new. Uncirculated, they are called, and dated from the 1860's to the late 1920's. I also bought

some of the \$2 1/2, \$5 and \$10 pieces and some foreign stuff like the 50 peso Mexican gold coins, but mostly double eagles. There is something about these beautiful double eagles of lovely yellow gold that captivated me. I don't know what the exact value of each of them is now, but it is certainly more than the worth of paper currency. Do I sound a bit smug? Damn right! And for reasons that should be obvious.

To continue. I sealed and buried the coins and other stuff too. Part of it is shown in the Polaroid picture enclosed. On the left is a handful of original black nuggets. Next is a pile of about 25 or 30 tumbled nuggets. In the center bottom is a roll of double eagles I took out of the paper wrapper for the photograph. Just to the upper left of the double eagles are a couple of the 50 peso pieces. To the right of the double eagles are some of the larger tumbled nuggets, up to six and seven ounces. To their right is a small pile of smaller U.S. and foreign gold coins. Directly behind the double eagles is a bar of silver bullion, 99.44 oz. I have about 20 of these. To the right of the bar are 12 rolls of double eagles. I suppose the big bag in back could be considered the *piece de resistance*. It contains 50 rolls of double eagles.

Once again, I believe it would be a fair comment to say that my faith in gold has been vindicated. And Thomas Hood, long ago, was able to express better than anyone else the effect of gold on mankind in this simple direct verse:

Gold! Gold! Gold! Gold!

Bright and yellow, hard and cold,
Molten, graven, hammered, rolled;

Heavy to get and light to hold.
Hoarded, bartered, squandered, doled,
Price of many a crime untold:
Gold! Gold! Gold! Gold!

Good or bad, a thousandfold!

The man who found Pegleg's black gold

NEW LUCK AT LUNDY'S CAMP

by JOHNS HARRINGTON

THE BEST THING to come out of the High Sierras may be a happy, sunburned, and perhaps pleasantly exhausted vacationer. But indubitably the best thing to go into the vast range is Highway 395. It carries motorists and trailerites into the Eastern part of the

great system of roadways and trails that covers the High Sierras like Paul Bunyan's net.

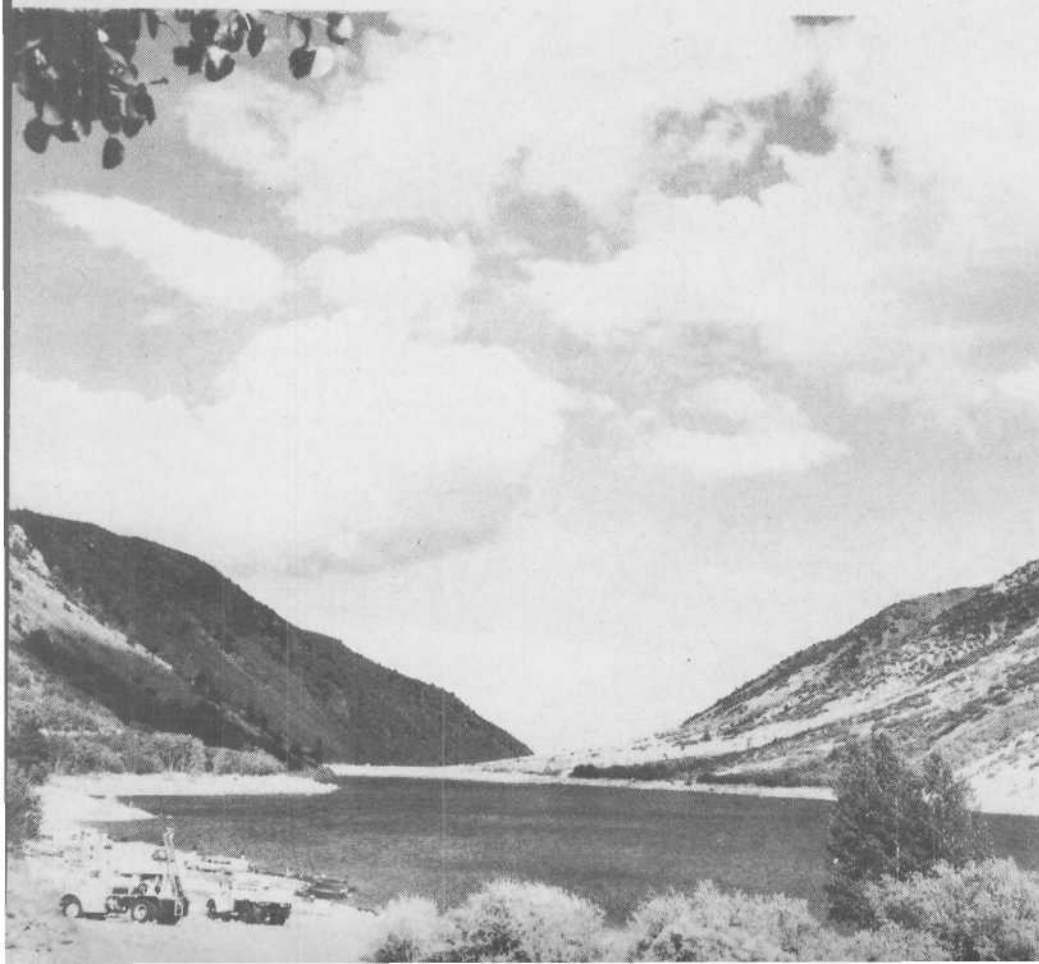
Travelers bound for parks, forests, lakes, streams, pack stations, and even high desert and ghost towns first take Highway 14 from Los Angeles in their

quest for relaxation, and point their metal steeds toward Mojave and Redrock Canyon. Near Inyokern, they pick up Highway 395 and continue to Lone Pine, Independence, Bishop, Carson City, and Reno, as well as to countless and assorted side destinations. Even after years of joyous exploration, visitors are likely to miss more than they can possibly see.

As they flow north or south over Highway 395 in the vicinity of Mono Lake, for example, drivers are likely to be so engrossed with the receding shoreline and mysterious Paoha Island that they will miss an unobtrusive side road with a small sign which reads "Lundy Lake: 5 miles." Like hundreds of other secondary highways, dirt roads, and trails that lace 395 on the eastern slope of the Sierras, the nondescript turnoff is just another John Doe in the majestic wide open spaces of the high country.

Yet, for the outdoorsman and his family, it is a place to turn off and turn on. Mono Lake is dead, save for thousands of salt water shrimp and the birds that feed upon them, but nearby Lundy Lake is very much alive. In the vicinity are

Lundy Lake, which is located near Lee Vining in the High Sierra, is easy to reach from Los Angeles and many other points via Highway 395. The distance from L.A. is about 340 miles.



excellent camp sites, both public and private; a well-stocked fishing lake; a small resort whose proprietors have kept it rustic; and a wilderness full of lakes, streams, and hiking trails that extends to Tioga Pass and Yosemite's back door.

The approach to Lundy may seem humdrum since it is high desert country without any immediate signs of life. But, as the Lundy road turns to parallel Mill Creek, a series of campgrounds blossom into view. As part of the Inyo National Forest, the camping areas are equipped with restrooms but not much else. The clue to their popularity is the enthusiasm with which they are occupied during the summer. Campers, trailers, pickup trucks, and just plain automobiles and tents are all the evidence needed.

In another mile is Lundy Lake itself, suddenly nestled in a high-walled canyon. Only a mile long, what it lacks in size it makes up for in being well-stocked and devoted strictly to anglers. Joy riders, water skiers, and swimmers go elsewhere and leave the chilly blue waters to the rainbow and the native German browns. The places which are reputed to yield the best catches are usually marked by clusters of shore fishermen or by conventions of outboards and rowboats. But the crowds are small because Lundy is not well known and certainly easy to miss.

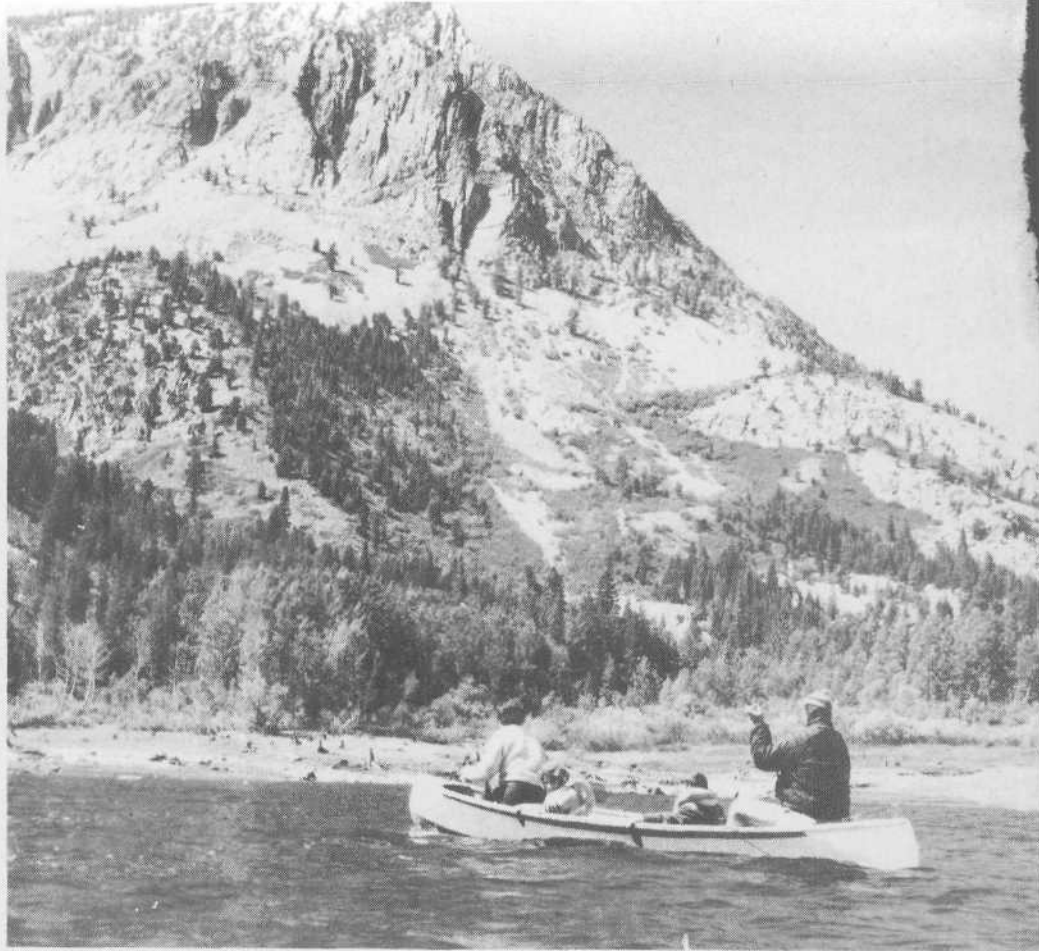
One day the fisherman may feel like a king, with his creel brimming, and the next day he may think that he is a born loser, wondering when the wind will stop blowing and the trout will come back from wherever they hibernate. Spinners, flies, worms, and salmon eggs are all good at one time or another and sometimes all at the same time.

Bus Ward, a veteran of many seasons at Lundy, reports his prize was a seven and one-half pound rainbow.

"It was the most expensive fish I ever caught," he said, referring to the \$60 he spent to have the fish mounted.

"That may be true," kibitzed his wife, Dr. Joy Ward, "But I never saw you relish spending \$60 more."

Despite the fine catches, some followers of the Lundy wilderness region scornfully shun the lake to fish the sector of Mill Creek above, or to hike to the many lakes which lie in the wild and beautiful region which stretches to Yosemite. At present, the upper waters of



Above: These fishermen from Chicago, who are paddling their own canoe, as the saying goes, find that Lundy Lake provides an ample supply of rainbow and German browns. The lake is located at an elevation of about 8000 feet five miles from U. S. Highway 395. Below: Campers and trailers collect at one of many public campgrounds just below Lundy Lake.



Continued on Page 40

Desert GHOSTS

by HOWARD NEAL

Silverton, Colorado

LOCATION: Silverton is located 22 miles south of Ouray and 49 miles north of Durango, on Colorado State Highway 789.

BRIEF HISTORY: It was the wildest celebration the community had ever seen. It appeared as if the entire population was having a party. It certainly must have been a gleeful moment when, on July 3, 1882, the first train arrived at Silverton.

Getting a train to Silverton had been a monumental task. The winter blizzards had been braved. The sides of precipitous cliffs had been carved away. Danger had been conquered. In nine months and five days, 44 miles of narrow-gauge track had been laid along the rugged canyon walls above the Animas River to connect Silverton with Durango and the outside world.

The first train to run over those few treacherous miles of track carried passengers, but the Denver and Rio Grande Railway had not built the line to carry people. The real money was to be made by the railroad hauling ore from one of the richest silver bonanzas in Colorado. Silverton was the central city serving a mountain area dotted with smaller communities and prosperous mines.

The town of Silverton was built in a beautiful small valley which is surrounded by the high peaks of the San Juan Range. The towering mountains, stretching more than 14,000 feet into the sky, create a spectacular view. Most of each year, though, those same mountains are ruggedly inhospitable.

It is little wonder that, in the summer of 1860, Charles Baker and his six companions selected the site of Silverton, the most pleasant spot among the peaks, for their camp. For several years Baker had heard rumors that gold could be found deep in Indian country, in the canyons of the San Juans. The mountains were forbidding, and the Ute Indians were known for their dislike of visitors, but Baker and his fellow prospectors braved the elements, somehow avoided the Indians, and found gold along the shores of the Animas River. At their camp the miners erected a few crude log houses, and they called it Baker City.

Baker City languished in the mountain cold for 14 years before, in 1874, it became Silverton. By that year a treaty had been signed with the Indians, the rich silver veins of the San Juans had been found, and Silverton boomed. The population is said to have reached 3,000 within a year.



Silverton's famous gold-domed courthouse, and other buildings such as the Grand Imperial Hotel, remind today's visitors of the former prosperity of the community. More than 300 million dollars worth of precious metals were extracted from nearby mines.

Photographs by Edward Neal.

On July 3, 1882,
the first train reached
Silverton from Durango.
Railroad workers had
braved winter blizzards
to carve 44 miles of
narrow-gauge roadbed
from the rugged cliffs of
the Animas River Canyon.
Today, a daily train
carries summer
vacationers.



Baker City was never a real city, but Silverton was. The main street of the community, Greene Street, was lined with hotels, banks, stores and other businesses. A block away, Blair Street was lined with saloons, dance halls and gambling houses. The city grew and prospered as more than \$300 million worth of precious metals were extracted from the mines of the San Juan Mountains.

The real boom at Silverton lasted but two decades. It ended with the silver crash of 1893. Gold mining, though, kept the silver city of Silverton from becoming a true ghost. For more than a century Silverton has kept its hold on life-giving sustenance to its nearly 1,000 citizens who enjoy the magic beauty and cool clear air of the high Colorado mountains.

SILVERTON TODAY: Half the fun is getting there! From Ouray the automobile road winds high over the "Million Dollar Highway." From Durango the highway climbs to elevations above 11,000 feet providing spectacular views of the magnificent San Juan Mountains. The train ride, though, is the best. The old narrow-gauge is the only one of its kind still operating. Each summer morning it leaves Durango and chugs its way up the canyon of the Animas River, through 44 miles of breathtaking scenery, to Silverton.

The other half of the fun is Silverton, itself. Its fantastic setting enhances both the enjoyment of its history and the beauty of its classic old buildings.

Silverton is not in the desert, nor is it a ghost, but for those who enjoy history and the rugged mountains of the west, Silverton is a must. □



The kiddie wading area is separated from both the surfing and sliding area.

ARIZONA'S OCEAN



by
**DIANE
THOMAS**

The surf slide may be ridden with or without a rubber raft and ends in a depressed pool at the bottom.



THE WATER ripples and swells; suddenly there is an increasing roar. A four-foot wave, just right for surfing, breaks 400 feet from shore. The waiting surfers paddle furiously to stay ahead of the crest, leap lightly to their feet and balance perfectly as they ride the curl.

This is a usual occurrence on the Pacific Coast or in Hawaii. But in the middle of the desert? It happens every 90 seconds several hours a day. It's Big Surf, in Tempe, Arizona.

Back in 1967, a Phoenix surfer, Phillip Dexter, tired of the drive to California every time he wanted to practice, drew up a design for an artificial surf maker. When he had worked out the mechanical details, he took his drawings to Clairol, Inc., a producer of beauty aids for women and styling combs for men. They were interested, but it took another year to sign the contracts and start looking for the right spot. Land in Phoenix was ex-

pensive, and the majority of surfers would be expected to come from the University at Tempe. The land was cheaper in Tempe, a site was found and a bit of Polynesia bloomed in the middle of an arid river bottom, 10 minutes from Arizona State University and three miles from the Phoenix City Limits.

In 1971, the complex changed hands. Clairol sold out to a Phoenix-based corporation which named itself "Inland Oceans, Inc." The complex covers 23 acres in all, four acres of it in sand beach, two and one-half acres are reserved for the lagoon, and the balance occupied with a snack bar, an elevated lounge where cocktail tables give a view of the surfing, an ice skating rink, offices, parking lot and pleasant landscaping.

Dexter's plans were modified to make something for everyone. Instead of being exclusively a surfer's paradise, Big Surf was designed to include rafters, swim-

mers, paddling tots and, in 1973, sliders.

The slide was inspired by a natural phenomena in Sedona, a community north of Phoenix, where for years vacationers have put on old jeans and ridden the river down a series of slick rocks to the bottom. The slide at Big Surf is an intricately planned series of twists and turns, much like a toboggan course, painted with a special slick paint. The sliders step into a gushing stream of water that literally knocks them off their feet, and down they swoop to end up in a depressed pool in a protected area away from the surfers, but still a part of the lagoon.

The lagoon is keyhole-shaped, 400 feet long and 300 feet wide, and is backed with a water wall. The sidewalls are sloping concrete. Stairs built into the rear sidewalls allow surfers to walk down with their boards to catch the big one in case they don't want to spend time paddling out for it.

Continued

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When it's swimmers time,
everyone gets into the lagoon.

Holding four million gallons of water, the lagoon is nine feet deep at the holding wall, gradually sloping to shore, providing a lot of gentle wading room for small children. Originally the bottom of the lagoon was plastic, but air kept seeping under it rupturing the lining and allowing sand to fill in and aggravate the problem. In 1971 the plastic was removed and the bottom cemented. Because the beach sand is carried into the water on bathers' feet, it feels like an ocean bottom to the swimmers.

The waves are produced through a custom hydraulic system housed in a 160-foot-long reservoir at the base of the lagoon. Water is pumped to a controlled height inside the wall, then released through a spillway type of underwater gate. The controlled height of the water allows waves to be programmed for beginners, intermediate surfers and experienced wave riders. The water is recirculated and treated and the surf is based on the pattern at Waikiki Beach. It was the world's first authentic surfing facility. Although waves in swimming pools have been a feature of many European spas for years, no surfing is done in these pools.

Inland Oceans, Inc., would like to build their type of facility in Western Europe, especially in Germany, where they believe it would be an instant success. But at the moment, construction costs are so high, any plans to take their ocean overseas have been shelved. Last summer a crew of English TV cameramen filmed a sizable segment of the surfing for a BBC special on sports in the Old West.

The schedule at Big Surf is worked out so bathers can enjoy gentle waves for swimming, body surfing or rubber rafting for two hours without being wiped out by a surfboard, as surfers are "beached." Meanwhile the use of the slide goes on and a shallow lagoon without waves allows children to wade in safety. After two hours, bathers are confined to the slide area of the lagoon, while surfers have their try at catching the big one for an hour and riding it to shore.

The management has had the fore-



sight to prohibit food and drink on the beach, so the facility is a model of cleanliness. The reasonable fees charged — \$2.25 for weekdays, \$2.75 for holidays and weekends — allow everyone to enjoy the desert ocean all day and evening.

There are also group rates, especially advantageous to schools. Both elementary and high school teachers incorporate a day at Big Surf in their plans for school outings. They appreciate the fact it is a controlled situation. Not only are the grounds designed to eliminate any desire under the elms, each person coming through the gate is given a complete search to see no food or liquor is carried in. The posted reason for this is to avoid any metal or glass to endanger bathers and the search is far more complete than any airline passenger experiences. Graduation parties stay safe, sober and soaking wet and teachers avoid instant grey hair.

The ice skating rink, called appropriately the Oceanside Ice Arena, is a separate building outside the fenced beach area. The 30,000-square-foot building has a 200 x 90 foot ice surface. Besides the University hockey team, professional teams are interested in making it their training headquarters. Opened officially June 1, 1975, it is a year-round facility and features one of the most complete pro shops at any ice rink in the West.

Big Surf closes down the lagoon around October 1st, but it accommodates private parties as long as good weather



holds. Although the lagoon is closed, the complex is kept open for concerts throughout the winter. Rock artists find a warm reception on a permanent stage to one side of the beach.

Giving thought to keeping it open year-round in the past has entailed looking into solar heating, but the company felt it would not be successful. Although surfers brave the cold waters of the coast all year, there is something psychological that affects surfers in the desert, and they won't use the facility when the temperature drops below 50°, wet suits or no.

The popularity of Arizona's ocean was seen in a steady 10 percent increase in attendance the first five years, and their millionth visitor passed through the gates in August of 1973. The gas shortage and economic problems slowed down 1974, but this year should top all previous years. There are more good waves in one hour at Big Surf, according to surfing experts, than in a whole day at a coastal beach. If they miss one, another comes along in 90 seconds, and you can't guarantee that at any ocean beach.

The numerous community colleges as well as the university in the area have helped make Big Surf a success. Active surfer classes enable the water-logged students to get physical education credits while working in competition. Regional winners go to the West Coast for National Surfing Contests, and seldom find the waves as cooperative.

Besides the local Valleyites who patronize the desert ocean, tourists to Phoenix mark it as a place to see. Surfers often spend the summer in the valley to take advantage of the controlled surf. The Phoenix airport is a scant five miles away, and it isn't a bit unusual to see bronzed boys with bleached hair, fins stuck in their back jeans pockets, waiting to claim their surfboards at the baggage counter. They've planned a fly and dive vacation. ☐

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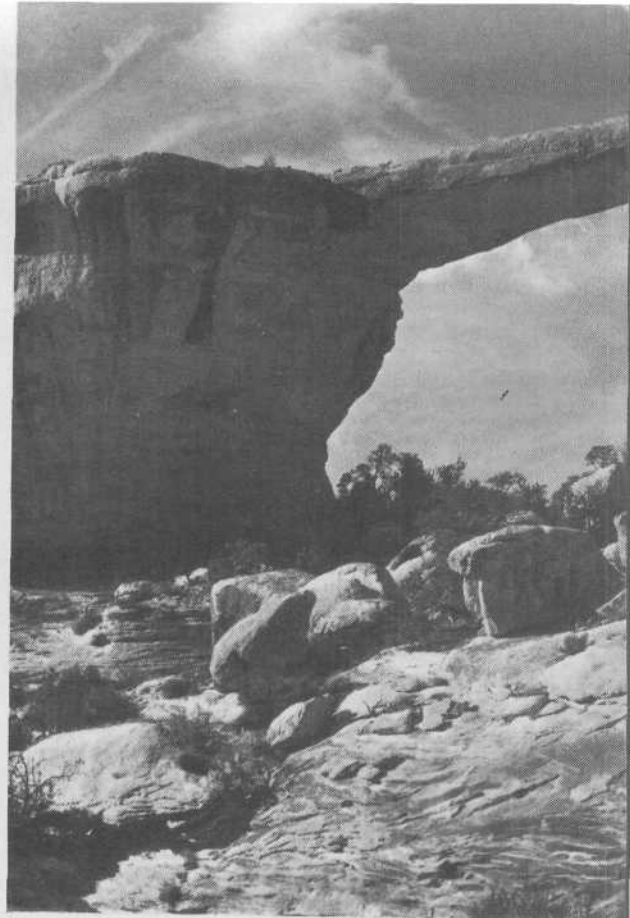
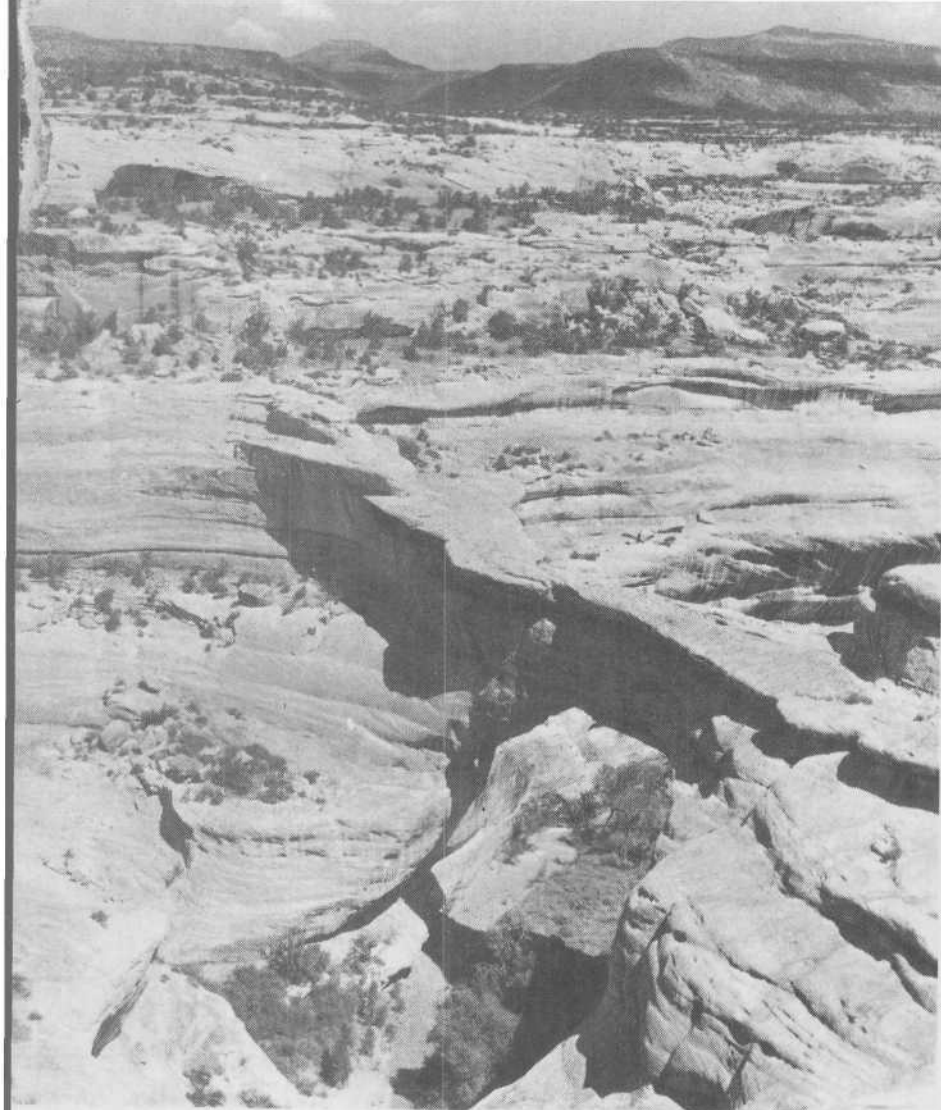
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Left: Sipapu Natural Bridge spans upper White Canyon. This immense bridge is the third widest in the nation. Above: Owachomo Natural Bridge is within Armstrong Canyon, a tributary of White Canyon, but does not span Armstrong and never did.

THREE WAYS TO SEE UTAH'S NATURAL

NATURAL BRIDGES National Monument has a curious history, and the story of its establishment is not at all like that of the other national parks and monuments of southeastern Utah.

The vast, empty land to the southwest of the Abajo Mountains is an elevated, gently sloping plateauland of broken, eroded sandstone covered with sparse to dense pinyon-juniper forests and slashed by a series of winding canyons that cut deeply into variegated sandstone. White Canyon is the largest and longest of these. Countless tributary canyons feed into White Canyon, adding to its spectacular depth and unusual length.

The area where White Canyon originates, and is joined by tributary Armstrong Canyon, is included within Natural Bridges National Monument. White Canyon ends at the Colorado

River gorge, now the upper end of Lake Powell, some 35 miles to the northwest of Natural Bridges as the crow flies.

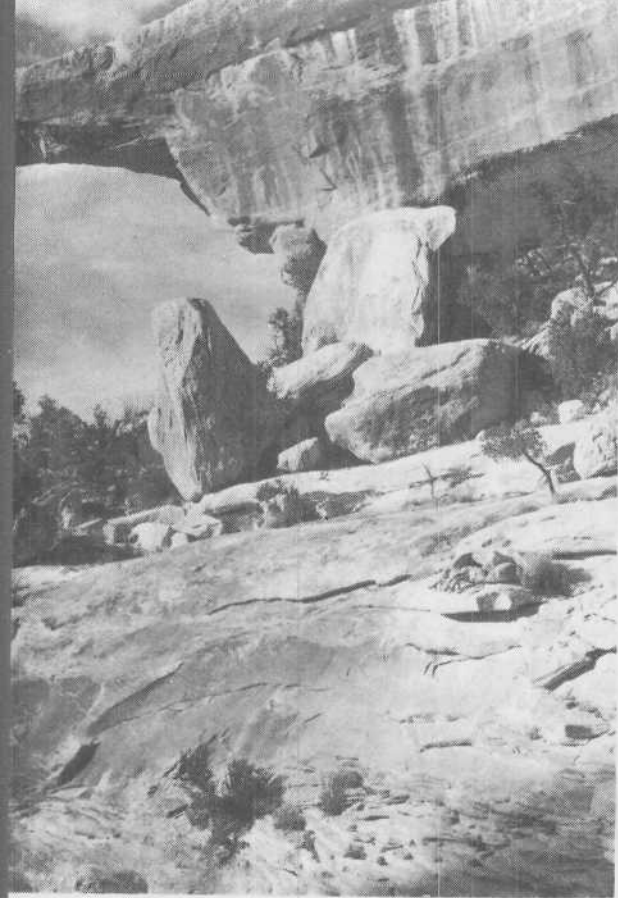
Natural Bridges National Monument is essentially dedicated to the preservation of three immense natural bridges in the Cedar Mesa sandstone of White and Armstrong Canyons. One, the third widest known natural span in the world, bridges White Canyon near its upper end. Another stands within Armstrong Canyon, a now abandoned "bridge" created by ages of runoff in a short spur canyon. The third bridge is in White Canyon, where White and Armstrong join.

The plentiful Indian ruins and writings in the vicinity of the three giant bridges prove that they were not unknown to the cliff-dwelling and nomadic tribes that once had this continent to themselves,

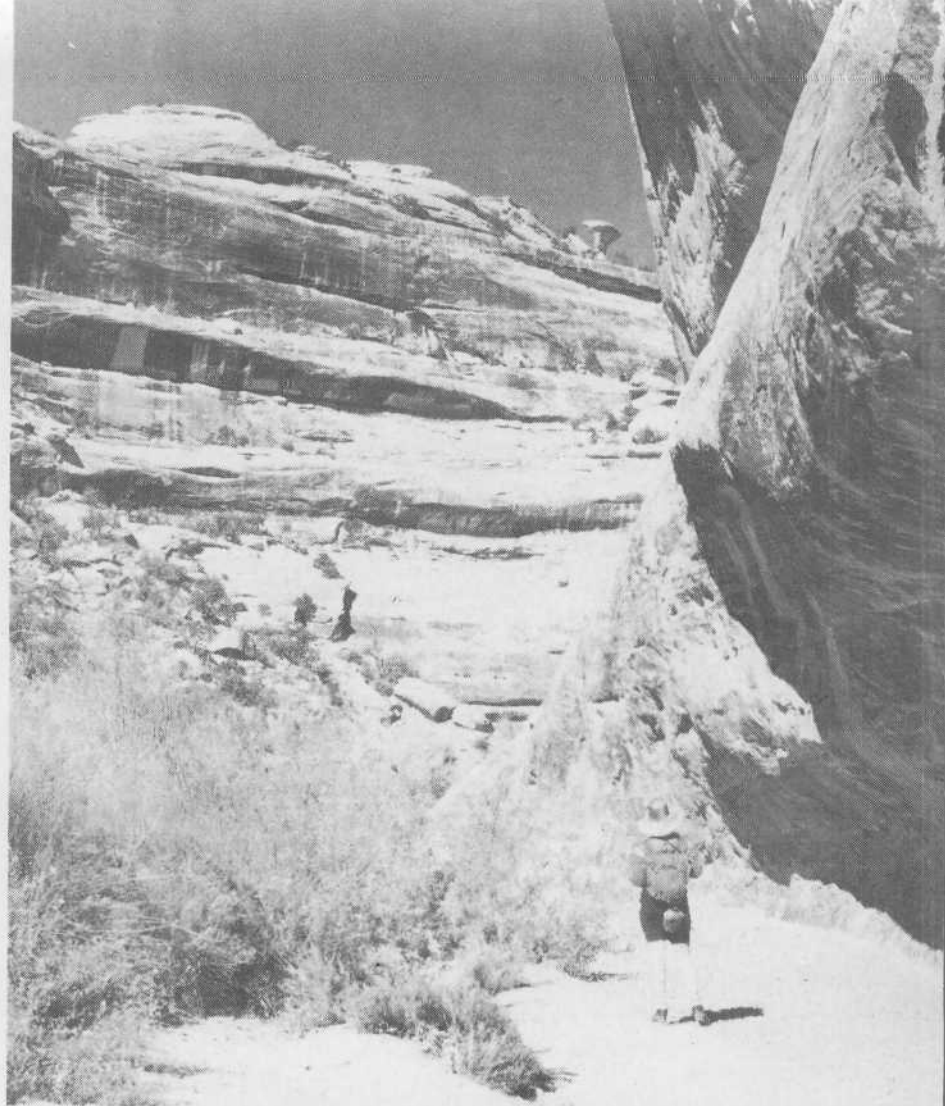
but the first white man to see the bridges was Cass Hite, a prospector who visited the area in 1833. Gradually, reports about the gigantic spans filtered out of this remote region. Articles in periodicals spread the word still farther. In 1904 the three bridges were featured in the *National Geographic Magazine*.

Thus, on April 16, 1908, President Theodore Roosevelt established Natural Bridges National Monument by presidential proclamation, to protect and preserve "a number of natural bridges in southeastern Utah having heights more lofty and spans far greater than any heretofore known to exist." The description of the bridges was necessarily vague because at that time they had yet to be visited and measured by a government surveyor of any kind.

This oversight was remedied in the



Every bend in the canyon between the three big bridges in Natural Bridges National Monument brings new delights. Note here the delicately balanced rocks on the distant cliff top.



BRIDGES NATIONAL MONUMENT

by F. A. BARNES

summer of 1908 when William B. Douglass of the General Land Office visited the new monument and took the critical measurements. These are listed, together with the original names of the three bridges, in the accompanying chart.

The naming of the three giant bridges is also a curious tale. The Paiute Indians, who were spread out over a large part of Utah at the time the monument was established, gave the three spans the collective name Ma-vah-talk-tump, or "under the horse's belly." The monument proclamation listed their names, "by common report," as August, Caroline and Little Bridge. Little Bridge was also known as Edwin.

The Park Service, however, thought the English names inappropriate and decided to give them Hopi names under the

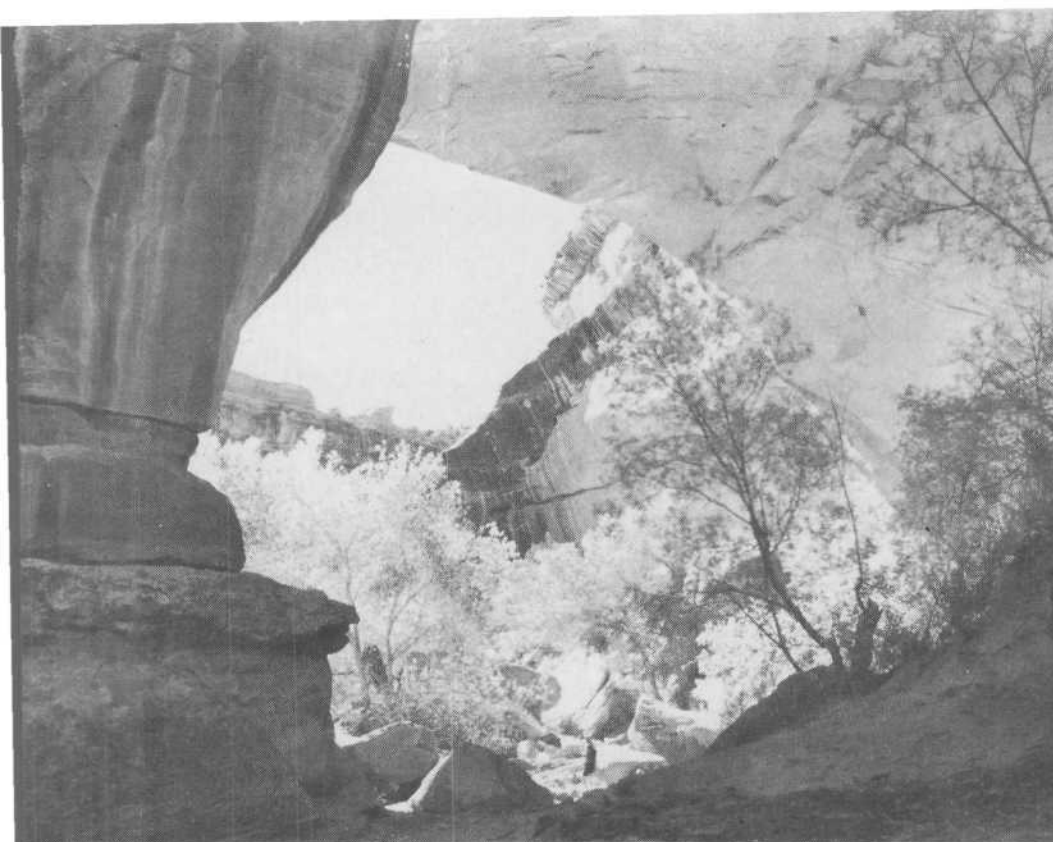
mistaken impression that the cliff dweller ruins in the monument were Hopi. The three bridges were thus renamed "Sipapu," after the cave portal through which the Hopi ancestors allegedly emerged from the underworld; "Kachina," after the Kachina-like petroglyphs near the White-Armstrong confluence; and "Owachomo," after the Hopi name for a type of rock formation found near the third bridge. These names have stuck, even though the archeological sites in the monument later proved to be Mesa Verde Anasazi, an extinct Amerind culture that occupied the region long before the Hopis.

At the time Natural Bridges was established and the three huge spans measured, it was thought that Sipapu's 268-foot span made it the widest in the country, perhaps in the entire world.

This record stood only a short while, however, because while the "Blanding Bridges" were being measured, a Paiute Indian named Mike Boy who worked for surveyor William Douglass told him of another large bridge he had seen as a boy.

The following summer, in August 1909, just 16 months after the establishment of Natural Bridges National Monument, Mike Boy led Douglass to Rainbow Bridge, deep within another tributary canyon of the Colorado River gorge. This discovery and its aftermath is an entire story in itself.

Rainbow Bridge's title to "the widest" did not last long either, because another span — an arch, not a bridge — took that official title when Arches National Monument was established in 1929. Today, five natural spans compete for the



From beneath its vaulted opening, the true size of Kachina Natural Bridge becomes apparent. Note the human figure silhouetted below the center of the opening.

title of "largest," all of them in southern Utah. Since "largest" could mean widest, highest or even greatest area of opening, and methods of measurement vary too, experts differ. But on the basis of width of opening, the five largest known spans in the country rank as shown in the accompanying chart.

The development of Natural Bridges National Monument for public visitation was slow and erratic. For decades, the only way to view these unique natural wonders was by horseback or, later, by rattletrap jalopies driven over horrible roads by the monument's custodian, Zeke Johnson, who served as combined superintendent, administrator, guide and laborer from 1921 to 1941.

For most of this time there were no facilities at the monument. Water had to be hauled from 25 miles away. Zeke Johnson lived there during the summer

months in a wood-frame tent, guiding the few tourists and scientific parties that came to the remote monument, and working on the trails to improve access for as long as weather permitted. From 1921 to 1933, Johnson's annual salary was \$12 per year, \$1 per month, but this had no effect upon his dedication. In 1933 his salary jumped to \$140 per month, for the four summer months, but remained at \$1 the rest of the year. This was later increased to \$140 for six months, \$1 for the other six.

Despite the inspiring dedication of Zeke Johnson, Natural Bridges National Monument remained relatively undeveloped until very recent years, and became accessible by paved road only in 1974. Late last year, paving on the final section of Utah 95 between Blanding, on U.S. 163, and Natural Bridges was officially opened. Now a beautiful two-lane

asphalt highway swings gracefully through magnificent canyon-plateau wilderness where previously only a rough and dusty trail traveled a tortuous route.

Zeke Johnson wouldn't know "his" monument now. A paved road enters the 7,600-acre preserve, passes a beautiful and modern visitor center, forks into a developed campground, then goes on to make a scenic eight-mile loop past viewpoints that offer tantalizing glimpses of the three great natural bridges.

The monument still does not provide overnight lodging, food, gasoline or other traveler supplies and services, but these are all available at Blanding, 42 miles east, a leisurely hour's drive on the new highway.

There are three ways to see the highlights of Natural Bridges National Monument. The simplest, but least satisfying, is to stop briefly at the visitor center, then drive around the loop road, pausing at each viewpoint for a quick peek at the bridges far below the canyon rim that the road follows. If time is limited, this approach is at least better than nothing, but certainly does little toward creating a true and lasting impression of the sheer size and beauty of these bridges, and offers not even a glimpse of fascinating archeological sites that are a part of the total park experience.

A second way to visit the monument provides a much better look at the natural and human wonders it holds, but takes more time and effort. This approach varies from the first in that an hour or two is spent at each bridge stop. There, well-marked foot trails descend into the deep canyons that the bridges span. Hiking down these trails for all or part of the way to each bridge provides a much better sampling of what this remote monument is all about.

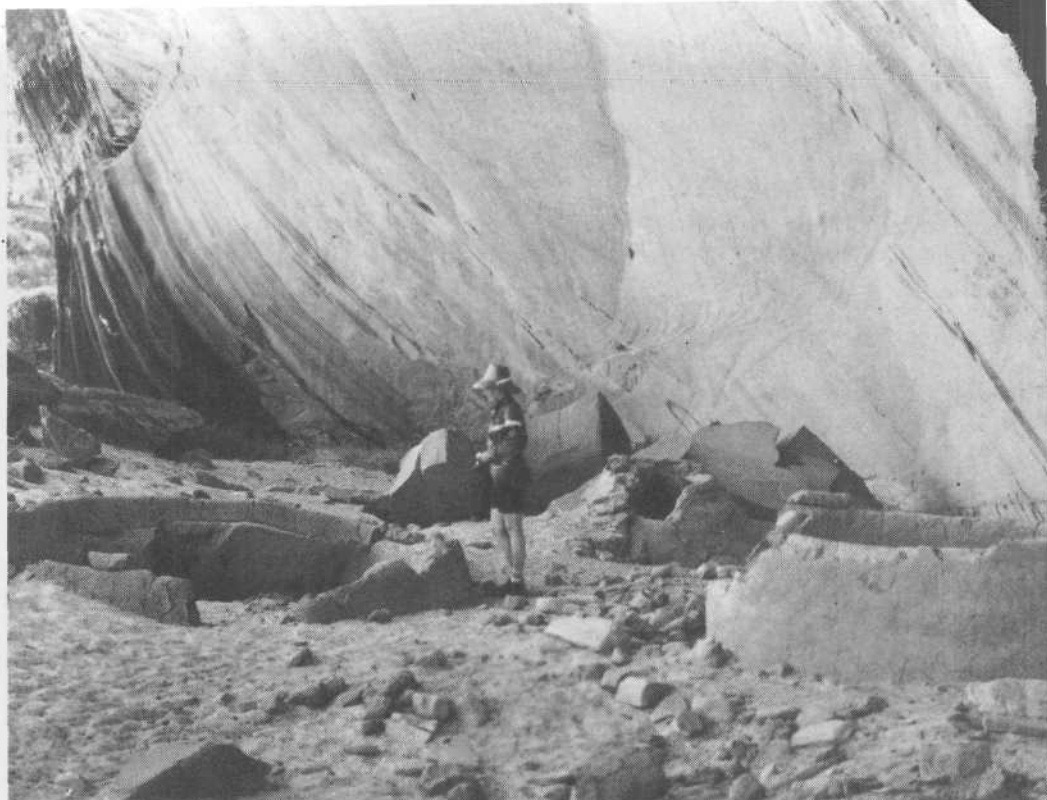
On the trail to Sipapu, a few small cliff dwelling ruins can be examined about halfway down, and the trails to both Sipapu and Owachomo offer many excellent views of the spans to which they lead. The ultimate of this approach, of course, is to go all the way down to each

Dimensions and names of the natural bridges
of
Natural Bridges National Monument
also known as Blanding Bridges or Ma-vah-talk-tump*

Bridge Names	Height	Span	Width	Thickness
Sipapu (Augusta)	220	268	31	53
Kachina (Caroline)	210	206	44	93
Owachomo (Little Bridge or Edwin)	106	180	27	9

*Paiute for "Under the horse's belly."

These Anasazi Indian ruins are near Kachina Natural Bridge. Petroglyphs and pictographs mark the sandstone walls near the plastered-rock structures.



bridge. Only by standing directly beneath these lofty spans can their true size be appreciated. In the warmer months, water should be carried along even on these relatively short jaunts, and those not in good physical condition should be warned that climbing back up to the road from Sipapu and Kachina can be quite strenuous. The trail to Owachomo is much gentler and shorter.

The best way of all to see Natural Bridges takes a full day and requires a moderately easy hike of about seven miles. It also requires a bit of vehicle juggling, or another four miles of hiking to get back to the Sipapu trailhead.

This approach to seeing Natural Bridges calls for hiking down the trail to the first bridge reached by the one-way loop road, Sipapu, hiking on down White Canyon to its confluence with Armstrong Canyon and Kachina, then hiking up Armstrong to Owachomo and on up to the loop road again.

This hike is delightful, especially during the spring and fall when daytime temperatures are moderate. Besides providing incomparable views of the three big bridges, this approach offers glimpses of other smaller spans, Indian ruins, balanced rocks and petroglyphs, plus endless views of spectacular and beautiful White and Armstrong canyons.

All of this is supplemented in the spring by the bright green of newly-leaved cottonwoods and other trees, and by dozens of species of annual and perennial wildflowers. In the fall, both shadowed canyons are lit by the golden glow of the same trees and shrubs wearing their autumn colors. In both seasons, quiet spring-fed pools in the canyon bottoms reflect the cliffs and colors, doubling the natural beauty that is rampant.

Hikers exploring the monument's canyons this way get an impression of ancient timelessness, yet there are drastic differences between the ages of the three large spans that give the monument its name. By human standards of time they are all ancient, yet on the geological time scale Kachina is quite young, its opening crudely shaped and

still growing. The bridge's abutments are still subject to attack by the intermittent stream that flows through its lofty opening, and that opening has not been smoothed by eons of gentle erosion by wind, moisture and rock-eating lichens.

Sipapu is much older than Kachina. Although Sipapu is now larger than Kachina in both height and span, Sipapu's growth has slowed, its abutments are beyond the normal reach of flooding waters and only the slower, gentler processes of erosion can enlarge it further. Kachina, however, will ultimately surpass Sipapu in size, unless some unlikely natural catastrophe destroys it first.

Sipapu is smooth, polished, complete, mature, but Owachomo makes even Sipapu seem youthful by comparison. One estimate indicates that Owachomo may be 10 million years old. The stream that

formed it has long since changed course, leaving Owachomo standing high and dry with only a little spring water and occasional rain runoff or snow melt passing beneath it. The bridge is as wide as it will ever be, and if lesser erosional forces trim its slender length much more, the span may collapse. This could happen any time, perhaps triggered by a sonic boom or the subterranean vibrations of nearby mine blasting, or 10,000 years from now if it receives adequate protection from the side effects of mankind's frenzied activities.

Natural Bridges National Monument — a strange and awe-inspiring place in a remote part of southeastern Utah. A monument with a curious history and delayed development, but one that is now readily accessible and ready to welcome visitors to its ancient open pages of geological and human history. □

FIVE LARGEST KNOWN SPANS

Span	Width	Location
Landscape Arch	291 feet	Arches National Park
Rainbow Bridge	283 feet	Rainbow Bridge National Monument
Sipapu Natural Bridge	268 feet	Natural Bridges National Monument
Kolob Arch	?†	Zion National Park
Morning Glory Arch	250 feet	Negro Bill Canyon‡

†The National Park Service lists Kolob as 325 feet, but arch experts challenge this. Because of its remote and inaccessible location, a precise measurement of the opening has not been made, but one expert places it as number four in width.

‡This huge span is in a tributary canyon of the Colorado River gorge just a short distance from Moab, Utah. It is the only one of the "top five" not protected by the National Park Service.

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New Luck at Lundy's Camp

Continued from Page 29

Mill Creek provide excellent fishing for anglers who like the small, tender native "brookies," but beaver dams and heavy growth of willows make some areas difficult to penetrate. Fishermen who plan hikes into the high country — whether they plan to spend a day or a week — should obtain wilderness permits at the ranger station near Lee Vining or from the Lundy Lake resort. At Lundy and above, there are no snakes, no poison oak, and few insects.

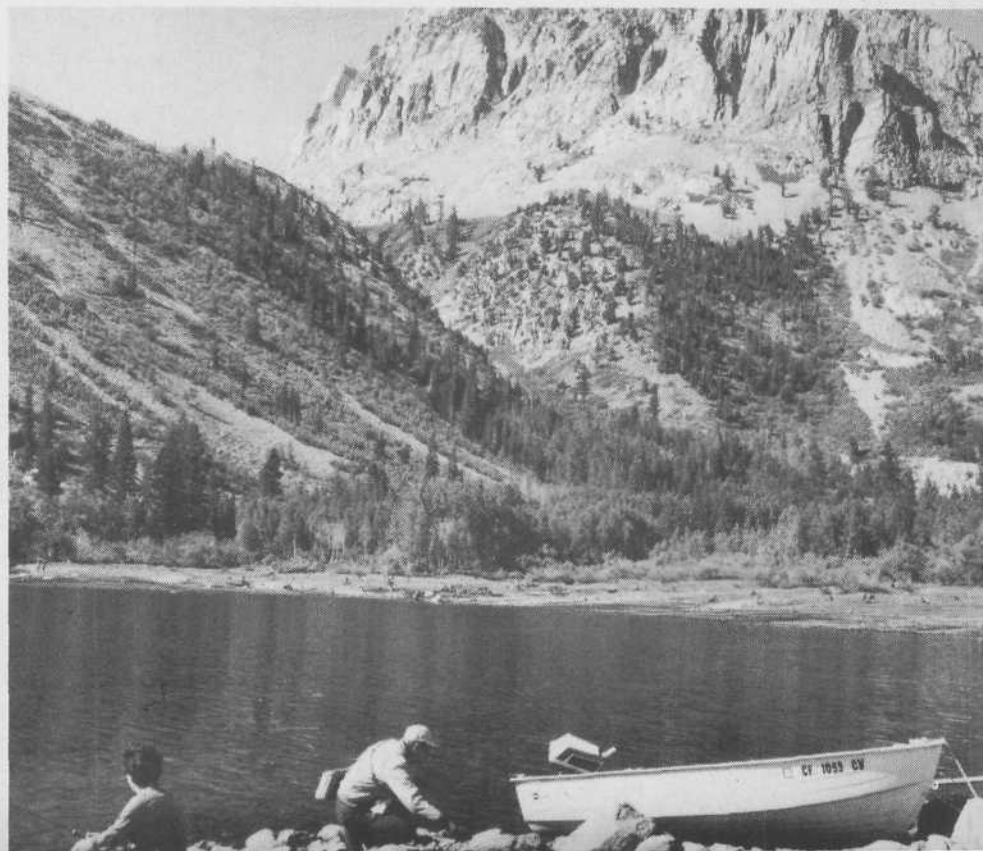
Of the hiking excursions, the easiest trek is via the old mining road to the May Lundy Mine, although the route is closed to vehicles and would be virtually impassible for them, anyway. On this combination road and trail, the farthest lakes — about six miles from Lundy — are Oneida and Ada. There is also excellent stream fishing. Many hikers make the round trip in one day, but others prefer to camp for a few days.

Wherever the destination and no matter what the length of the trip, the jumping off point is the Lundy Lake resort, which is open from May 1 to October 31. With an elevation at 7,800 feet,

it is located at the west end of Lundy Lake on the site of the old mining camp. Two of the original buildings dating to the 1800's still stand, although they are not in use. Lee and Beth Hunt, the proprietors of the resort, rent boats to fishermen on Lundy and also grant launching privileges to those who bring their own craft. The Hunts have 14 cabins and mobile homes scattered about which are available as rentals. Guests can also bring their own trailers, for which utilities, showers, and restrooms are provided. This part of the resort is situated on the site of the old Chinatown, where curious visitors sometimes still find old opium bottles.

Nowadays, there is a new kind of luck at Lundy Camp — for people who love the frosted peaks, the hungry trout, and a land which has still been unspoiled by civilization. The rattle of dice and the blast of brassy music in the saloons have been replaced by the scream of fishing lines exploding onto the lake and the occasional brushy sound of anglers stalking their prey on Mill Creek. The cracking wagons have faded into oblivion and in their place are trailers, campers, and passenger vehicles bringing a new wave of immigrants — thanks to one of the blessings of civilization, Highway 395. □

Visitors to Lundy Lake Resort can rent boats or bring their own. Despite the advantages of a boat, shore fishing is both popular and successful.



Desert Plant Life

by JIM CORNETT

©1975



THE DESERT TRUMPET is one of the few plants that has benefited from man's impact on the Southwest deserts. Preferring disturbed, well-packed soil, this member of the Buckwheat family is often the dominant plant in areas where the original vegetation has been scraped away for development.

The desert trumpet can be identified by the numerous inflated stems arising from a cluster of basal leaves. The inflated stems are swollen at their upper portions and usually branch off in two's or three's. The flowers are yellow and the leaves and stems various shades of green or blue-green. Mature plants are 10-32 inches tall.

Eriogonum inflatum is the scientific name given this perennial. Although such names may seem designed to confuse and tongue-tie the novice, they can be very helpful in remembering certain characteristics of the plant and its family. *Eriogonum inflatum* is a case in point. *Eriogonum* comes from the Greek language and means a "woolly joint"

which many members of this genus possess. *Inflatum* (the species name) is Latin and refers to the inflated or swollen stems of the desert trumpet.

Wasps of the genus *Onverus* often lay their eggs within the inflated stems of this plant. A tiny hole is made in the stem through which the insect carries small pebbles and deposits them in the base of the stem. On top of these it places numerous insect larvae, then lays its eggs. The larvae provide food for the young wasps and the desert trumpet provides shelter and protection. This activity does not harm the plant.

Blooming in both spring and fall, the desert trumpet can be found at elevations below 6,000 feet in the desert areas of California, portions of Utah and Nevada, and Arizona.

The desert trumpet, and for that matter most of the buckwheats, can be used as food. The stems can be eaten either raw or cooked, preferably before the plant has flowered. □

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Rambling on Rocks

by
**GLENN and
MARTHA VARGAS**

NEW MOHS SCALE 10 and 15: Titanium Carbide and Diamond

THE NEW Mohs scale has two most interesting additions. First, number 10 is a synthetic material, titanium carbide. Second, diamond is moved up to a new number — 15.

Perhaps the inclusion of a synthetic material might not seem very unusual, but in the minds of the authors, it is. First, if we go back into history, at the time of the inception of the Mohs scale (about 1820), there were no synthetic materials. If we choose to disregard any historical significance, then we must admit that a scale designed to tell us the hardness of minerals we might find in the field depends in part upon a synthetic material that could not possibly be found in the field.

Frankly, we must admit that we know very little about titanium carbide, except that it is quite hard. This is a relatively new synthetic that evidently has some industrial use based upon its hardness. Further than this, we are in ignorance, and searching the available literature has given us almost no information.

Why this particular synthetic was chosen is difficult for us to understand. The Knoop hardness (see below) for titanium carbide is 2470. Silicon carbide, a well known material used by mineralogists and lapidaries as an abrasive, has a Knoop hardness of 2480. Certainly, in the light of familiarity and available knowledge, silicon carbide would have been a better choice. The two hardnesses are virtually identical so that in practice one should be as good as the other. We suspect that silicon carbide has some feature that makes it less desirable, but

we wonder if this would be of great consequence.

The second unusual feature of the new scale is the creation of a scale of 15 instead of 10. Most unusual is that there are no standards for 11 through 15, and evidently no plans for such. The new scale simply goes from titanium carbide, at 10 — to diamond at 15.

We can understand the moving of diamond up to 15. This now very graphically shows the great difference between corundum and diamond, which has been noted.

If there is a great difference between these two, then how do we measure it? The physicist and laboratory mineralogist uses what is known as the Knoop scale. This is determined by using a diamond point and pressure. The harder the mineral, the greater the pressure needed to make a dent in the unknown sample. The readings of the Knoop scale are in kilograms per square centimeter. A kilogram is about two and one-quarter pounds, and a square centimeter is about one-sixth of a square inch.

Any readings expressed in Knoop figures can easily be interpreted by anyone into the amount of pressure needed to overcome the hardness of a mineral. The Knoop values for the original Mohs scale are shown below.

Mineral	Mohs Value	Knoop Value
Talc	1	-
Gypsum	2	32
Calcite	3	135
Fluorite	4	163
Apatite	5	430
Orthoclase	6	560
Quartz	7	820
Topaz	8	1340
Corundum	9	2100
Diamond	10	7000

Some very interesting comparisons become evident upon examination. For the first two minerals, there appears to be no correlation up to 3. For 3 to 6, most are nearly 1.2 times harder than the mineral one number below. For 6 through 9, most are nearly 1.5 times harder than the one below. Granted, the factors of 1.2 and 1.5 are not really close, thus the ascending values are not good mathematics. However, a certain amount of credit must be given to Frederick Mohs (designer of the scale) for choosing a series of minerals that nearly follow a good mathematical sequence. This becomes even more miraculous when we realize that the Knoop scale was adapted in 1939, many years after

the Mohs scale was devised.

If we continue with the Mohs-Knoop comparison, we find the great difference between corundum, at 2100 — and diamond at 7000. If we take a simple arithmetical difference, diamond is over three times as hard. If we follow the same 1.2 and 1.5 progression of the minerals below, the difference is from three to six times. The choosing of 15 for diamond (five times as hard as 10) for the new scale is certainly in line.

Regardless, no matter how much we can calculate and rationalize, we are discussing two vastly different scales. The Knoop is based upon definite units of pressure that are reported directly. The Mohs scale was worked out somewhat haphazardly, but almost follows a mathematical progression. Obviously, we really cannot compare them. The only real use that the field mineralogist can make of the Knoop scale is to compare a scratch hardness in a very general way. On the other hand, the scientist uses the scale for precise determinations. He can, however, give us information that we can use in our comparisons.

This series of columns on the hardness minerals was undertaken for two reasons. First, we felt it to be a good idea to present something of the new thinking in mineral hardness. We have had some excellent correspondence, and feel a sense of accomplishment. Second, we used the scale as a method of presenting what we felt were interesting facts about the minerals involved. The comments here have also pleased us. There have been some benefits beyond this that we did not anticipate, and we would like to pass one of them along.

In one of the early columns in this series, we listed the Mohs number 2 as gypsum, and discussed it in the proper order. When we discussed the new Mohs scale, rock salt (halite) was listed as number 2.

We recently have been sent a copy of an article in another magazine which discussed hardness. We found that halite was listed as number 2 of the Mohs scale. We first thought that perhaps this was due to the new thinking, and was listed in error.

While looking through some older literature (1920) we again found halite listed as number 2. Now we wonder if and when halite was replaced by gypsum or whether it was the other way

around. Now we wonder how much was new when we listed halite as the "new" number 2! We have always felt we were well acquainted with Mohs scale, but not until recently had we noticed halite as one of the indicators.

Perhaps a summary of the two Mohs scales is a bit of duplication, but we will risk this and give some of our own feelings in the matter. We have sparingly given in past columns some of our feelings as to the possible values and acceptance of the new scale. We would like to go a bit further here.

There is no question in our minds that the Mohs scale has some glaring inaccuracies. These, however, usually become evident only to seasoned mineralogists. When an experienced person does realize the inaccuracies, he also realizes that he has come to that point without being greatly hampered, and finds that he can continue without ill effects.

A revised hardness scale is not a new idea, but the pressure for one is now being strongly felt. Any new idea must have a sponsor. In the case of mineralogy, such a sponsor would best be a book. This would give the new idea geographical coverage, and users of the book would be won over to the idea by usage.

Presently, mineralogists find themselves in a unique situation. New books on mineralogical subjects are appearing regularly, but few of them have the potential of becoming important references.

Recently there has been published a book that has good possibilities of becoming an important reference. Another is in the preparation stage, and a past reference is in the process of revision. None of these use or will use the new Mohs scale. Whether the authors were reluctant to use the new scale, or whether they disagree with it is not known at this point.

If we can ascribe some merit to the new scale, then in our minds, the only way it can gain acceptance is through publication in a new book. Whether or not this is being planned, we do not know.

Until such time as it is published in a good book (not merely magazine articles), the new Mohs scale will remain only a new idea, suggested by some, and viewed from a distance by others.

We have added our bit in the form of a

small push, now we will watch and wait to see what better mineralogists than we will do with it. The waiting period will be interesting! □



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Oregon's Lost Blue Bucket Mine

Continued from Page 15

search parties, in 1860 and 1861, did go out seeking the gold said to be discovered by members of the wagon train. Possibly, these searches might have been motivated by Captain Waller's find of gold in the Malheur region.

The searchers of the 1860's found only the barren waste lands surrounding "Stinking Hollows." One party was led by Henry Martin who had been in the wagon train in 1845. With nearly 100 men and some 160 head of horses, the party left Eugene, backtracking over the emigrant trail in the vicinity of Malheur Lake. Indians finally stampeded the party's horses and they returned carrying only a profusion of verbal nuggets regarding their hardships.

In 1861, after a previous unsuccessful attempt to locate gold in eastern Oregon, a pioneer of the original wagon train, J.L. Adams, joined a search party led by Henry Griffin. In the fall of that year the group set out from Willamette Valley. During their search, members of the party came upon Canyon Creek, a tributary of the John Day River. While prospecting the area the treasure seekers located rich diggings. The general speculation was that they had found the site where Daniel Herren had found his nuggets. Grizzled old-timers, however, maintained the wagon train had not passed that far north.

Other searches of the terrain near Malheur Lake produced nothing. In 1864, Dr. E.H. Bruney of Portland came into possession of a diary said to have been written by Mrs. Adam Smith Hamilton, one of the 1845 emigrants. Using the directions he found in the diary, Dr. Bruney led a small treasure seeking party to "Stinking Hollows." Upon arriving at the "Hollows," located along the marshes in the vicinity of Silver Lake, the party moved north and west to a river the emigrants had named Sandy River. It was in this area, according to Dr. Bruney, "Mrs. Hamilton and others said they picked up gold." They scoured the area thoroughly but did not find any gold. The group dispersed empty-handed and disillusioned.

There remains one important fact which persists throughout the legend of the phantom gold. It must be examined critically if some semblance of truth is to

be arrived at. Between September 23 and September 30, 1845, 18 persons in the emigrant party perished and were buried beneath the desolate wastes over which the wagon train had passed. Folklore recounts how the emigrants crossed into Oregon Territory, and on the Meek Cut-Off, a woman named Mrs. Sarah or Mary Jane Cummings or Chambers died of the rigors of the journey. Her grave, as were others along the route, was marked with a gravestone upon which her name had been crudely chiseled. Legend states that one day's travel from her grave would lead to the spot where the wagon train camped on the creek which contained the gold.

This grave has been found by several people. The first to find it is said to have been a scout under General Howard during the Chief Joseph War. He is said to have plainly marked the location and later gave directions to its location to an old prospector, Duncan Teter, who journeyed to Malheur country where he found it. After searching in vain, Teter threw down his pick in disgust and returned to Willamette Valley. There he heard news which would discourage the most dedicated of prospectors. He was not the first to discover the grave of Mrs. Chambers! It seems that two Frenchmen got there before he did and, using the grave as a landmark, located the stream containing the gold. But the Indians in the region forced them to flee from the area. The legend goes on to relate that the Indians moved the gravestone to another site to throw off future gold seekers.

Nevertheless, Teter returned to the site and dug up the grave. Instead of bones he found only rock and earth shaped to resemble a grave.

H.R. Reaves, the wealthy cattleman who previously traced the trail of the emigrant party, is reported to have found the grave of Mrs. Chambers. He opened the grave and found bones. When he made the one day's journey to the west of the grave, to the alleged site of the gold, he encountered only barren streams.

There are a number of facts which cannot be reconciled. Members of the 1845 migration should have been able to determine whether the "yellow rocks" they found were gold. It is difficult to understand why three years later Marshall's 1848 gold discovery would rock

the nation while the nuggets found in Malheur country did not have the same effect. Surely, the emigrants were as familiar with gold as were the settlers in the Sacramento area. Yet, the discovery of gold in Malheur country went unnoticed even by the emigrants in the wagon train. This casts considerable doubt upon the claim that Daniel Herren or any one else actually found gold. It must be remembered that the claim the emigrants made of finding gold was made after the 1848 gold strike at Sutter's Creek. Was the gold discovered by Daniel Herren, if, in fact, he found gold, the find made by the Griffin party at Canyon Creek?

The grave of Mrs. Chambers, as a starting point from which to locate Herren's gold, has proven to be of no value. The grave does establish that the wagon train passed there and that a Mrs. Chambers died and was buried there. A reading of the diaries kept by several members of the wagon train shows that the emigrants arrived at Crane Prairie, almost due south, on September 5, 1845. Whether it would be practical to explore the area south of the grave remains in question.

What has emerged is a tale of gold being found and no one knowing what it was nor stopping to gather the profusion of nuggets said to be scattered about. Over the intervening years, commencing 40 years after the "find," a series of articles published in the *Portland Oregonian* created a legend incapable of being proved or disproved. The literature about this facet of Oregon history is as contradictory as the tales told by the emigrants. It is now impossible to separate fact from fiction. Even the Daniel Herren stories, the most logical of all, are highly suspect.

Oregon's "Lost Blue Bucket Mine," the elusive phantom of gold, started to produce pay dirt 40 years after its "discovery" in 1845 when the *Portland Oregonian* first printed the tale of the gold. The meager yield has continued for the past 80 years. Its best yield has been columns of black ink printed on newsprint.

Only time, a lucky circumstance, and a dedicated treasure seeker fortunate enough to find what is now known as the "Blue Bucket Mine" will reveal whether history was made on that perilous day in 1845. □

Letters to the Editor

Letters requesting answers must include stamped self-addressed envelope

Owls in the Limelight . . .

A bit of information fell into my possession recently concerning the intelligence of birds. Quite startling to me, was the fact that the owl—traditional symbol of intelligence—has a very small brain relative to its body size. Knowledgeable in appearance, the owl harbors mental abilities quite inferior to those of his relatives. Another shaking fact was that most of today's ornithologists place the crow at the top of the tree in intelligence!

Though this information is well documented, I for one will continue the tradition of recognizing the owl as at least the "symbol" of intelligence. Certainly, I can see why your advertisement dealing with subscriptions to *Desert Magazine* reads, "Whoooo's the Wise Owl?", and not, "Whoooo's the Wise Old Crow?"

ROBERT B. RASBAND,
Whittier, California.

I am a proud new subscriber of *Desert Magazine*. I think the cover of Vol. 38, No. 6, June '75 of the Barn Owl is simply beautiful. Jerry Strong should have an award for such a detailed, expressive picture. I've never seen a better one.

I work in needlepoint and use your magazine now for ideas to put on canvas. I shall certainly use that owl.

MRS. ROD ROGERS,
Tucson, Arizona.

My wife and I had not seen a copy of *Desert* until two days ago. The touching story, "Owls on My Hat" puts us "birds" on your subscription roster.

Could our order be retroactive to include the June, 1975 issue? Besides, June 15th is my birthday, just in case you give a hoot.

CLAUDE DOWNS,
Bakersfield, California.

An Idea for Cross Reference . . .

I devised a cross reference and filing system that works very well for us and might be of interest to others.

Each article of interest or possible future interest is marked with an "X" by the page

number on the Contents Page. On the front cover is written File:— Each article marked "X" is then written in the master Cross Reference Folder. We use metal file boxes and file folders to hold the magazines. California is divided into counties, then into areas within the county. The index file is done the same way.

MRS. R. E. LYTLE,
Placentia, California.

Scrapbook Items . . .

June's article on Butch Cassidy's home was very interesting to me, because I visited this cabin just shortly after the antiques were taken, and it was still open to the public.

My snapshots were poor and yours will go in my vacation scrapbook of my pleasant visit through Utah.

Wonder how many of us could live and raise a family under the same conditions? Not many, I'm sure.

THELMA M. BUTTS,
Orange, California.

Author out on a Limb . . .

I question the theory of Joe Kraus about the crossbar used for hanging beef growing higher during the years on the Butch Cassidy ranch.

In my home town the old Fire Chief told of clamping a cable around a tree during the high water of a flood which was used for years as a bench mark for measuring other flood lines.

I think a tree grows from the top, not the bottom?

FRANK CUNNINGHAM,
Burbank, California.

Concerning the story "Butch Cassidy's Home" by writer Joe Kraus (June, '75), on page 11—the first paragraph on left side of page beginning "Outside, an extruding log"—the next sentence reads—"The pair of old cottonwood trees in front of the cabin have carried high with their growth the crossbar used for hanging butchered beef."

Since when does a limb move up on a tree trunk, or any other plant, from its original position? No plant, regardless whatever kind it may be, has limbs or branches move up on the main stem. New limbs appear as the trunk grows upward.

Thanks for reading my hair pulling note.

C. H. LEUPP,
Palm Desert, California.

Mr. Leupp: Living on the desert, I guess I've been looking at too many sand dunes and roadrunners to take any notice on which way a tree grows. To be sure, however, I checked your statement with Charles Lee, horticulture consultant with the Los Angeles County Arboretum in Arcadia, California. He says you're right. That crossbar at the Cassidy home just looked a little high to me. Sorry about that.

JOE KRAUS,
Palm Springs, California,

Calendar of Events

AUGUST 31, Fourth Annual Treasure Hunt sponsored by the California Searcher's, Inc., Gardner's Cove Resort, Highway 132, 12 miles west of Modesto, California. Prizes, camping, fishing, flea market, entertainment.

SEPTEMBER 5-7, Wasatch Gem Societies 15th Annual Gem and Mineral Show, University of Utah Special Events Center, Salt Lake City, Utah. Chairman: David Lewis, 1955 North Redwood Road, Salt Lake City, Utah 84116.

SEPTEMBER 13 & 14, 16th Annual Jubilee of Jewels Show sponsored by the Carmel Valley Gem & Mineral Society, Exposition Hall, Monterey Fairgrounds, Monterey, Calif. Demonstrations, dealers, food. Donation. Chairman: P. O. Box 5847, Carmel, Calif. 93921.

SEPTEMBER 13 & 14, 9th Annual Harvester of Gems & Mineral Show, sponsored by the Sequoia Gem & Mineral Society, Redwood City Recreation Center, 1328 Roosevelt Ave., Redwood City, California. Dealers, Demonstrations, Food, Door Prizes. Dealer Space filled. Admission. Chairman: Preston Bingham, 1144 17th Ave., Redwood City, Calif. 94063.

SEPTEMBER 20 & 21, The Magic In Rocks Show sponsored by the El Monte Gem & Mineral Club, Inc., Masonic Temple, 4017 No. Tyler, El Monte, Calif. 91732. Dealer space filled. Chairman: Johnny Johnson, 11416 Mulhall St., El Monte, Calif. 91732.

SEPTEMBER 12-14, 2nd Annual Gem & Mineral Show, "Treasures of the Earth," sponsored by the El Cajon Valley Gem and Mineral Society, Parkway Plaza Shopping Mall, El Cajon, Calif. Contact: Robert Silverman, 1409 Teton Dr., El Cajon, Calif. 92021.

SEPTEMBER 27 & 28, "The Show That Shows How," Gem and Mineral Show, sponsored by the Mother Lode Mineralites of Auburn. Free Admission. 20th District Fairgrounds, Auburn, California.

OCTOBER 3-5, Fourth Annual "Rough Run" in Afton Canyon, sponsored by the Pasadena Free Wheelers. Registration, \$7.50 donation. For details write: Jerry Wendt, 326 E. Colorado, Arcadia, Calif. 91006.



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own a Silver Streak travel trailer or motorhome, you have a product that has proved itself for a long time. And it's here to stay. That's stability.

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